

THE NORTH END



CITY PLANNING BOARD
BOSTON, MASS.

1919

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(Photo by L. H. Abdalian)
FIG. 1.—VIEW OF BOSTON, NORTH END AND THE HARBOR FROM THE CUSTOM HOUSE.

THE NORTH END

A SURVEY AND A COMPREHENSIVE PLAN

REPORT OF THE CITY PLANNING BOARD
BOSTON, MASS.



CITY OF BOSTON
PRINTING DEPARTMENT
1919

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Oct. 3, 1989

CITY OF BOSTON.

IN CITY COUNCIL, January 20, 1919.

Ordered, That an edition of fifteen hundred copies of the report of the City Planning Board, dated November 18, 1918, and entitled "The North End," be printed as a city document, and the expense of such edition be charged to the appropriation for City Documents.

Passed. Approved by the Mayor January 23, 1919.

Attest:

W. J. DOYLE,
Assistant City Clerk.

LETTER OF TRANSMITTAL.

Boston, November 20, 1918.

HON. ANDREW J. PETERS,
Mayor of the City of Boston:

DEAR SIR,— In accordance with the provisions of chapter 494 of the Acts of 1913, pursuant to which the members of this Board were appointed, we have made “careful studies of the resources, possibilities and needs” of the district known as the North End, “particularly with respect to conditions which may be injurious to the public health or otherwise injurious in and about rented dwellings,” and have prepared plans for the development of the district “with special reference to the proper housing of its people.” We have also studied the existing improvements and the amenities of the district, the public services that are now maintained in and for its benefit, and possible plans for extension or modification of those services.

The results of these investigations, studies and designs we present herewith as a report, together with a set of plans. In presenting these records and recommendations we realize that we may be criticised for suggesting improvements from which, under existing laws and customs, the direct financial return to the public treasury will not be sufficient to cover the cost. We believe, however, that some changes must be made, and will be made, in the district, and that such changes as are made will prove more efficient if executed in accordance with a definite and complete general plan; and we further believe that the entire plan, if adopted to be carried out as opportunity offers, will be justified by the improvement in living conditions over which the city is the official guardian, and upon which the welfare and prosperity of the municipality is absolutely dependent.

Certain of the improvements herein recommended should, we believe, be made at once; others may be post-

poned; but in order to make the plan effective, definite building lines should be at once laid down wherever practicable under existing laws. Other proposed extensions that cannot be established under existing laws should be adopted as definitely proposed streets, to be opened when demanded, or, better yet, should be established under special legislation.

Respectfully submitted,

THE CITY PLANNING BOARD,

R. A. CRAM, *Chairman*.

JOHN J. WALSH.

HENRY ABRAHAMS.

ELISABETH M. HERLIHY, *Secretary*.

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THE NORTH END.

I.—LOCATION, BOUNDARIES, SIZE, CHARACTER.

The area considered as the North End is a distinct community of practically one hundred acres, entirely cut off from all other residential districts in and about Boston, with waterfront activities on the north and east, and commercial industries on the south and west.

The area devoted to residences at the present time is nearly identical with that described by the original shore line. Although this area has been greatly extended by filling, thus allowing for the expansion of the residential district for a time, the boundaries of the housing section have been in recent years, and continue to be to a certain extent, forced back by the encroachment of commercial interests. How far this will continue cannot be determined, but the character of occupancy of the district at the present time, and the rate of change in the last half century, do not suggest any very material changes in the near future.

Originally the North End was a peninsula, but with the construction of the canal through the Neck, following the line of Blackstone street, an island was formed of about $63\frac{1}{2}$ acres. With the filling in of the canal and flats, this area was increased to practically 100 acres, of which nearly 70 acres are devoted to residential purposes. The remainder, on the south and east sides of the district, adjacent to the market and the business sections, especially along Fulton street, is largely devoted to industries and has never been used for residential purposes.

Bounding the entire area, the broad streets of Washington, Causeway, Blackstone, Clinton and Commercial were constructed. These arbitrary boundaries determine a definite area and this seems the most practical unit for purposes of study and comparison.

During the early history of the city, and up to the time of the Revolution, the North End was an important residential center, and on the slopes of Copp's Hill — the most important of the hills of the early colony — some of the fine old houses are still to be seen. A series of progressive changes have taken place, however, until now it is chiefly a tenement district, so congested that it has already necessitated much regulation and many costly improve-

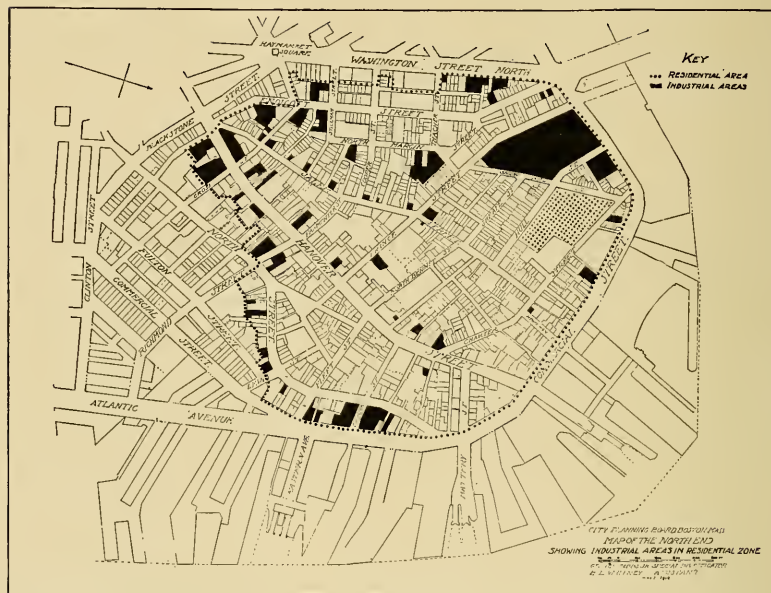


FIG. 2.— MAP SHOWING BOUNDARIES OF RESIDENTIAL ZONE, WITH NON-RESIDENTIAL AREAS.

Residential area bounded by heavy dotted line. Black represents industrial areas.

ments, but is still greatly in need of wholesale reformation if living conditions are to be made wholesome and agreeable.

II.— HISTORICAL.

The North End in the early days was divided into a number of large lots along a few lanes or roads. The map prepared by George Lamb from conditions recorded in the Book of Possessions of 1645 shows a settlement in Boston centering along Washington and State streets — now the business center — and the North End (Fig. 3),

with Hanover street as the main artery, a causeway approach across the flats from the West End and a shore road around the greater part of the district.

Although the large irregularly shaped lots thus constituted have since been divided and subdivided, their original boundaries have been largely instrumental in determining the plan of the present day. A complete



FIG. 3.—THE NORTH END AS IT WAS IN 1645, FROM MAP COMPILED BY GEORGE LAMB, SHOWING CONDITIONS RECORDED IN THE BOOK OF POSSESSIONS, SUPERIMPOSED ON MAP OF PRESENT DAY.

network of streets and alleys has developed with relatively large blocks between streets of reasonable width, and many back lots approached only by narrow and crooked passage-ways.

These changes have been gradual, to meet the demand of immediate necessity, with little thought for the ultimate results, which were not then foreseen, but are now most emphatically brought to the attention of the people as being detrimental to the welfare of the city. Fortunately

the greater part of the filled areas to the east and west have been carefully planned and today are less in need of further public attention.

Justin Winsor in "The Memorial History of Boston" states that in 1676, following the great fire of that year, the first established street lines were staked out by the selectmen.

The same historian further says that "In 1692 a law was passed forbidding the erection of any wooden building over 8 ft. in length or breadth and 7 in ht., and in 1700 an act recites that this provision has been constantly set aside; and while it would be too severe a punishment to destroy all that had been erected, yet that such bold and open contempt might not pass wholly unpunished, and to deter others from doing the like in future, a fine was imposed not exceeding £50 for one offense on all who had so offended. But larger discretion was given to the governor and council to grant licenses."

In 1718 the first factory was built in Boston, at the corner of Tremont street and Hamilton place. This factory, Mr. Winsor states, to have been the memorable result of the "spinning craze" which took possession of the town shortly after the arrival of a number of Irish spinners and weavers, bringing the implements of their craft. Some time later factories were started along the waterfront in the North End, now North street, and a part of Commercial street.

The Bonner map of 1722 (Fig. 4) and the Burgiss map of 1728 (Fig. 5) show a very considerable change in the city. The Old State House was distinctly the center, with business buildings on Washington street running north and south, and on State street and Long Wharf to the east. The principal streets in the North End, which are nearly identical with the important streets in that portion of the city today, were largely built up. In the thirty-six blocks then comprised in that district there was ample back yard space, with no evidence of congestion of buildings. The canal through Blackstone street, a mill pond on the west, and piers extending out

I have examined this plan and find it to be an exact
copy of the original
Boston July 2^d 1835 -
Stephen P. Fuller
Surgeon

1722

Etate Sup 60

*Engraved from a copy in the possession of W^m Taylor Esq
and published by*

GEORGE G. SMITH, ENGRAVER
Washington, opposite State Street Boston
1835.

Roxbury Flatt

COMMON

Charles River

Ferry to Charles Town

Mill Pond

Scale of 1/4 Mile

BOSTON: N.E.

EXPLANATION.

Planted An. Dom. 1839		
A The Old Church	1639	a. Town House.
B Old North	1650	b. Governors House.
C Old South	1660	c. South Grammar School.
D Annabaptist	1670	d. North Grammar School.
E Ah. of England	1688	e. Writing School.
F Bn. St Church	1699	f. Writing School.
G Bn. St	1710	g. Alm. House.
H New North	1718	h. Bridewell.
I New South	1716	Streets & Jones Alley
K French	1716	Houses near 3000
L New N. Brick	1721	1000 Brick & 1/2 Timber
		Near 10 000 People

Great Fires.	Gen ⁿ
First. 1653	Small Pox.
Second. 1676	First. 1640
Third. 1679	Second. 1660
Fourth. 1683	Third. 1677
Fifth. 1690	Fourth. 1685
Sixth. 1691	Fifth. 1702
Seventh. 1702	Sixth. 1721
Eighth. 1711	

Engraven and Printed by Fra. Denning. Boston NE 1722. Sold by Cap^t John Bonnet and Will^m Price against y^e Town House where may be had all sort of Print Maps &c.

FIG. 4.—MAP MADE BY LOUIS BONNER IN 1722

through Washington and Water streets, Liberty square and Broad street to India Wharf, with the Old State House and State street still the center. It shows the North End developed along the three main arteries, North street, Hanover street and Salem street, with the bridge to Charlestown from Prince street and the scheme for streets across the Mill Pond. Far out from the original shore line, east and north, a number of piers extend, containing many buildings, probably largely warehouses and stores.

In 1833 Blackstone street was laid out on the line of the old canal, as that waterway had been abandoned. The Mill Pond had been filled and the North End had again become a part of the main land of the city.

Mr. Winsor, in his history of Boston (Page 45, Vol. 4), further states:

. . . The aggregate amount expended in the widening and the extension of streets from 1822 to 1866, a period of forty-four years, was but \$4,418,283 in the city proper,

and in a footnote he adds:

The North End received much the largest share of the improvement funds, Blackstone, Commercial, Court, Friend, Hanover, North and Union streets, having had the sum of \$1,142,234 expended upon them; and numerous other streets, small sums, amounting to very much in the aggregate.

In the same volume Mr. Winsor tells that the filling between wharves for the formation of Atlantic avenue, 1868 to 1870, cost \$2,400,000, making it the most costly street in the city except Washington street, and but little less than that.

In 1874, when the first complete atlas was prepared by G. M. Hopkins, the North End was filled with crowded buildings, the land was cut up into many small holdings, rear yards had mostly disappeared and many interior lots had become occupied. Lots under 1,000 square feet in area, and even of only 200 or 300 square feet in area in various parts of the North End, were covered with small buildings, fronting on narrow courts and places, many only

6, 8 and 10 feet wide. Conditions were bad, and as these buildings became old and dilapidated the problem intensified.

The map of today, prepared from the recent atlases and from personal observation, shows a fairly definite line between the industrial and the residential areas, and from the records of the past and the present tendencies it seems fair to assume that this line will be but little changed in the near future. Opening of new streets would doubtless lead to increased land values, and possibly to commercial invasion, but the North End is isolated, is separated from the office district by the market district, and bids fair to retain its present character.

III.—CHANGES TAKING PLACE.

With the moving away of many of the old families a gradual change took place in the North End. The buildings were divided into smaller apartments to meet the demand for cheaper rents; tenements were built, and overcrowding resulted, both in buildings and on the land. The increased demand led to a spreading out over the newly filled area, west of Washington street, and even on to the piers along the water front. A few of these still remain at Battery street and at Eastern avenue, but most of them have given way to other uses.

The general tendency at the present time is toward concentrated habitations, covering all available space and extending to five or six stories in height; although, in many of the buildings, local retail business is claiming the ground floors.

Hanover street, through the center of the North End, leading directly from the heart of the city, is lined on both sides with local stores, but is still largely residential, and this fact suggests that other and less direct streets, even if greatly improved, would probably remain also largely residential in character.

In a few isolated cases, especially near the city center, entire buildings are being taken over for business purposes. A few of the outlying residential areas are being superseded

by wholesale commercial activities, while the stables and shops are giving way in the interior of blocks to stores and residences.

With the enactment of more rigid health laws and regulations, and the untiring efforts of city officials and philanthropic workers, the crowding in rooms and the lack of sanitation and of ventilation have been greatly relieved, but the small lot facing on an inadequate open space still remains, while the demand for habitations in the district seems to be greater than ever. Some improvement is being made in the spacing of buildings on the land, especially where small, unsatisfactory holdings are brought together under a single ownership, while land values are increasing in a large part of the district.

With the loss of the private yard the need for open spaces has become intense. Through the opening of school yards and playgrounds some relief has been afforded, and in the past many improvements have been made in street areas, but conditions are still inadequate and the present activities for betterment by the city are far too small.

Two opposing forces are active in the North End today. The vigorous community interests of the people, together with the nearness of the region to the center of the city, render the locality especially inviting; while the suburban districts made more available through improved transportation facilities, together with an abundance of light and air, and the possibilities of employment in the increasing suburban industries, prove an attraction to many. Upon the balancing of these influences, together with the possible increased need of the area for commercial uses, the future of the North End will depend.

IV.—THE NORTH END AS A POSSIBLE IDEAL TENEMENT DISTRICT.

Since people are permitted to live in concentrated city communities, whether in tenements, apartments, hotels or institutions, the injuries resulting therefrom should be

reduced to a minimum, and all possible improvements made for the welfare of the occupants.

If tenement houses can be designed, constructed and maintained so that disease and crime can be kept down, privacy and family integrity preserved, children given a fair start, and life made reasonably agreeable, then their existence may be justified, but such tenements must be



FIG. 6.—VIEW OF CHARTER STREET LOOKING NORTH FROM HANOVER STREET.

Buildings mostly four and five stories high, on very deep lots; not conducive to healthful conditions on a narrow street.

much better than the average now found in the North End. Since under present economic conditions, tenements must be maintained, either as temporary abiding places or permanent houses, those factors necessary to healthful living, that cannot be had in the building, must be provided outside and chiefly at public expense. With the growing appreciation of the need for such expenditures, the question of the value of the tenements to the city as a whole becomes more important, and the time may come when it

will prove practicable to provide homes elsewhere with greater individual advantages. Until such homes are provided the tenements will exist, and public provision, at whatever expense, must be made as a supplement to them, and to work toward the development of an ideal district. At the present time the city provides most of the accessories to such dwellings, including public streets, schools, park lands, and service and protection agencies; and further, it regulates the remaining area to insure a certain amount of light and space to the tenant, but if satisfactory tenement conditions are to be established more stringent laws must be enacted.

Through public and private enterprise the residential property has increased in value until today it is assessed at about twenty million dollars, a valuation from which the return to the city through taxes is a considerable sum, which should be sufficient to warrant the investments of the past, the annual costs for local public service, and a fair share of the general expenses of the city.

To determine how near the city may approach an ideal condition for that greater portion of the North End now devoted to housing is a question of vital importance. Under present laws and customs the condition most to be desired is the public care and control of all necessary open spaces, with sufficient building and property regulations to insure wholesome conditions. Some protection should also be afforded to private courts and back and side yards, now often fenced off from one another, and neglected or subjected to all sorts of undesirable uses. Such a plan can be carried out, and should be, even though the cost be great, and the immediate returns be more largely in human life and character than in taxable values.

V.—REHOUSING AND DECENTRALIZATION.

It would be possible for the city to cause the abandonment of the North End as a residential district since the enforcement of rigid restrictions and regulations on land of high valuation leads to more expensive building and

increased rentals, and further public improvements lead to still higher land values. As higher rentals are demanded the population becomes more concentrated, and is forced to depend still more on public advantages or seek homes in other sections of the city.

This process may continue gradually under present methods of improvement until the provision for housing accommodations in the North End will actually begin to decrease. Such a climax has not yet been reached, and is not likely to be soon under present conditions, judging from the demand for lands and homes and the continued increase in population.

The maximum capacity of the North End for living purposes under existing laws and regulations can be approximately determined. It is well beyond the present number of residents, but is being approached gradually. By the adoption of a plan or plans for raising the minimum requirements for accommodations to a higher standard, the city would evidently reduce the maximum capacity, but would also force owners to improve their property and thereby increase its value.

The city of the future certainly will not permit congestion to go beyond a certain limit. If that limit can be established at once, great economic waste can be prevented. Up to a certain point reasonably satisfactory conditions may exist, and to that extent rehousing in the North End should be encouraged. When that limit has been reached, growth should cease, or, to that limit, the population should be reduced. Such reduction means decentralization. By the development of other sections of the city, and the improvement of rapid transit lines, and other facilities, decentralization is now being encouraged and will be fostered to a still greater extent. Any extensive changes in the plan or the regulations of the North End will necessarily disturb a number of the residents and may work temporary hardship, but it is quite possible that, with the assistance of public and private agencies, many of those displaced will move to better quarters.

In the case of the destruction of tenement houses to make way for the South Terminal Station, a careful record was kept by the Associated Charities, who reported as follows:

NINETEENTH ANNUAL REPORT, NOVEMBER, 1898, PAGE 40 ET SEQ.

The houses vacated were on the side of the New Union Station. They were occupied for the most part by very poor families, families which were occasionally, if not permanently, dependent upon charity for a part of their scanty living. It was thought that the erection of a station in a district of this kind would change the nature of the entire district. Hence the original investigation was extended to twelve families in the adjoining streets, but thus far the change has had no effect there.

Thirteen families were visited who were living upon the immediate site of the station, and were all obliged to move at about the same time. They furnish an illustration of the effect upon very poor families of a forced migration caused by the demolition of their tenements. This has always been a factor in the problem of better housing. It is said that the poor must live somewhere, and, if their tenements are destroyed, they will have no place in which to live. Are not poor tenements better than none? Or, if we destroy a certain number of poor tenements, will it not result in overcrowding in the neighboring tenements, and hence make the real condition of the tenement classes worse than before? Is it true that families occupy poor tenements because they can get no better at the same price? These are vital questions in the tenement-house problem, and it is primarily with them that this investigation is concerned.

The families were visited before and after they moved. The tenements were examined, also the buildings, with special reference to the light and air admitted and the rent paid in each case. Each tenement was then marked on a scale of ten according to its relative desirability, ten representing the highest grade.

In addition, the general condition of the family was noted, particularly the size of the family, the occupations of those who were at work and their earnings.

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A few of the families had lived in their tenements a long time. One family had occupied their tenement for thirty-seven years, a second for twenty-one years, a third for sixteen years, and a fourth for twelve years. The remaining families moved more frequently,

but they had averaged about four years each in their tenements. In fact, nearly all of them were old inhabitants of the district.

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The general result of the investigation, therefore, shows that the greatest advantage was realized in case of those families which moved from the lowest grade tenements. From these tenements the families moved to others which afforded better accommodations, and which noticeably improved the tone of the family life without any increased cost of rent. The change from the medium grade and higher grade tenements, however, although it resulted, like the others, in improved conditions, was more apt to be accompanied by an increased cost of rent. And, if the change was made to a tenement very much superior to the previous tenement, the improvement in condition was apt not to be accompanied by corresponding advance in the tone of the family life.

If plans for the improvement of the North End are carried out in a way to leave usable building lots of fair proportions, and if these are consistently built upon, the results should prove beneficial even to those who might seek homes elsewhere, as in the case of the South Terminal Station clearing, while better living conditions would be established for those who remain in the district with an appreciable area for parks, playgrounds and open spaces.

VI.—JUSTIFICATION FOR A CITY PLAN.

Many changes and progressive improvements have been made by the city and by private owners in the North End, but no definite plan has been considered for the completion of these activities, and until the city takes a large share in the development of the district, no plan can be successfully carried out. If a business concern will tear down, redesign and rebuild its plant as a good investment, a city can well afford to do the same. A number of cities have already begun this work of demolition and rebuilding, which will doubtless continue on a large scale.

Upon the character of the skeleton formed by the street system and the private lot lines, about which the development of private property takes place, depends very largely the welfare of the occupants. In the North End this is

probably more evident than in any other section of the city and can be remedied only at considerable expense. Unless a general plan is adopted changes made in a small way and by sporadic efforts will result in great waste of materials and funds. While it is not necessary that such a general plan be immediately carried out in its entirety, provision should be made so that those portions not executed should be made binding for later developments.

VII.—BASIS FOR A PLAN.

In order to determine what plan will best serve the district from every point of view, a survey has been made and diagrams have been prepared to show land values, building values, building heights, street widths, lot depths, and block depths, use of buildings, density of population, directions of travel, grade conditions, schools and parks and many other factors that serve to indicate present conditions, show the trend of development, point out what changes would most benefit the community, and compare relative importance and cost of the various improvements. Such facts, gathered from many sources, have been used as a basis for the maps and diagrams herewith presented.

Such facts as the loss to the city through low vitality, sickness and death, and the burden upon public institutions that may be in part at least due to unwholesome conditions that have been studied at length by the city authorities and various charitable and philanthropic organizations, have been accepted as already established.

From the evident needs of the district, together with the conditions shown on the diagrams, a general plan for comprehensive development has been prepared, as well as a number of special plans for local improvements.

VIII.—LAND SUBDIVISIONS.

The private lot as a housing unit is primarily of greatest interest to the owner, but its ultimate character is a matter of public concern inasmuch as it is largely dependent upon local public streets.

In the development of new districts there is a general

tendency on the part of most cities toward standardizing the depths of lots, widths of local streets and units of lot frontage. The standards adopted are usually based on a general average of the various needs of all localities of each district. Local streets when made 40 or 50 feet in width serve all ordinary requirements, but if much wider or narrower become a matter for specific consideration.

The depth of lot is more serious than the unit of frontage, for frontage can easily be varied while depth is fixed in single or double units, thus constituting an important feature in the development of the community.

The great blocks in Washington, in the heart of the city, designed for amplitude and splendor, have led in places to the worst of slum conditions because the excessive depth was not needed, and by subdivision, rear lots on alleys and courts have developed. In New York the standard depth of 100 feet has been almost everywhere adopted, and has been found fairly satisfactory, though too deep for ideal tenements and too shallow for large industries and institutions.

Other cities have adopted standards of 100 or 125 feet and in some cases deeper. In a few instances 80 feet and even less is now the prevailing depth, especially in Philadelphia, where small single houses are built on lots as small as 14-foot frontage by 45 feet in depth.

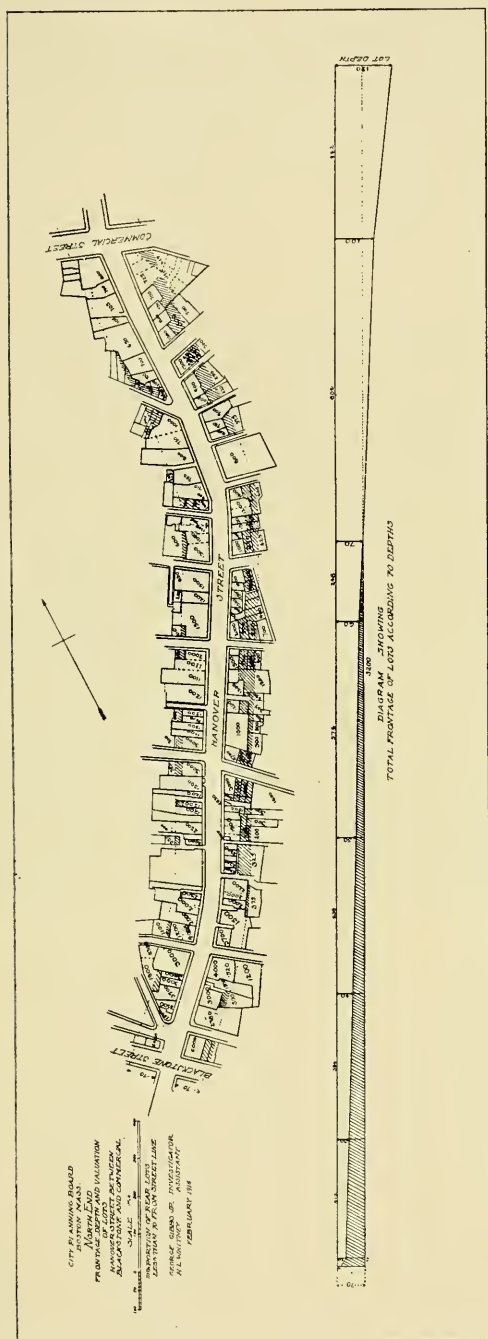
In the North End, on the filled lands west of North Margin street, reasonable uniform lots were planned, 80 and 100 feet in depth. In most cases these have proved satisfactory, though a few have been subdivided so that buildings in the rear face on narrow streets, courts or alleys. In the greater part of the North End, however, successive dividing of irregular lots has resulted in a great lack of uniformity in size and shape. In almost every case those fronting on wide streets afford good housing conditions and need little further public planning. The very deep lots, that have remained unchanged for a number of years, or have resulted from more recent combinations, present bad features at the rear, particularly if they have a narrow frontage. In blocks of excessive depth, where a rear lot

is blanketed by a shallow one, land values are depressed, as for example, Hanover street (Fig. 7), where there is a great variety of sizes and depths of lots. Assuming that this particular street can well serve lots to a depth of 70 feet, it is apparent from the accompanying map and diagram that a large proportion of the frontages are not so well developed as they should be.

For instance, a certain lot has a frontage of 70 feet on Hanover street, and a depth of 30 feet, assessed at \$22 per square foot. There is another lot in the rear, 40 feet in depth, assessed at \$3.25 per square foot. From these two the city receives less taxes than would be the case if the properties were joined, *i. e.*, the value of a strip of land 1 foot wide on the front lot, 30 feet deep, is \$660, while on the rear lot, 40 feet deep, it is \$130, or a total of \$790 per front foot, including both lots. There is little evidence to show that the assessment on the front lot would be materially reduced had the properties been joined, since an adjacent property which is almost 70 feet deep is assessed at \$22 a square foot, but even if lowered to \$20 per square foot, the value per foot frontage would be \$1,400, or over 75 per cent (\$610) more than under existing conditions. Where the front lot is deeper than 30 feet, the increase in value would probably be less than 75 per cent, but for those under 30 feet it would probably be more.

From the map it appears that practically one half of the entire street frontage is made up of lots of less than 60 feet in depth, with an average assessment somewhat lower than in the case cited. This represents a considerable annual loss in value, through no fault of the owners or of the city, but because of local property lines that have never been revised.

While there are comparatively few cases of great loss in value or of serious menace to the community from excessive depth of lots on Hanover street, there are a certain number that would have greater value if the rear portions were made a part of adjacent properties, facing on other streets, or that could be improved by the making of new public streets or other open spaces.



A standard lot depth of 100 feet may serve ordinary requirements for lots of fair frontage on reasonably wide streets, but for the narrow average width of streets in the North End, and the class of buildings now erected or likely to be erected in the near future, 100 feet in depth is in most places too great.

A 60-foot lot, fronting on a street of reasonable width, with a small rear yard, can be built over in such a way as

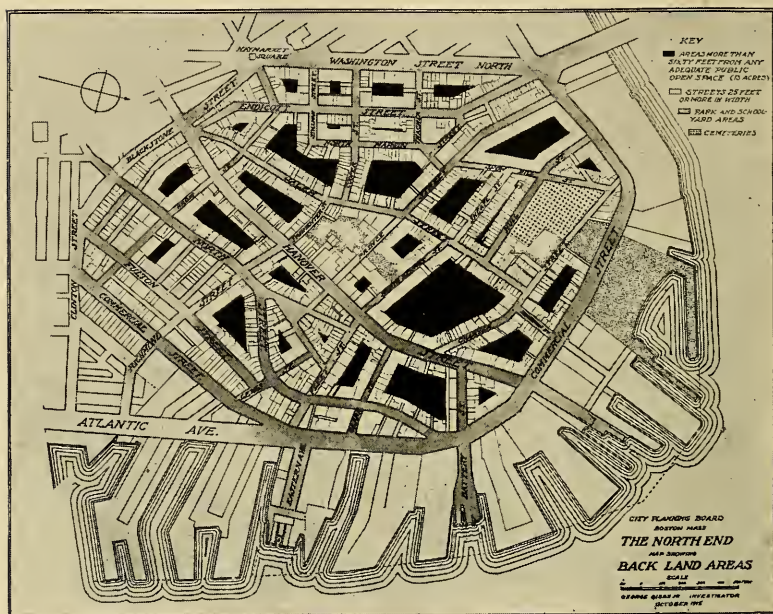


FIG. 8.—MAP OF BACK LAND AREAS IN THE NORTH END.

Gray — Reasonably wide streets. Dotted area — Public open spaces.

Black — Rear lands 60 feet or more from such open spaces.

to provide wholesome living accommodations. In the rear of lots in excess of 60 feet in depth there are large areas of land in which now most of the seriously menacing conditions in the North End are to be found.

On the map (Fig. 8) are shown all the streets 25 feet or more in width, together with public open spaces, and all back lands more than 60 feet distant. These back lands cover nearly 13 acres, or 13 per cent of the total area of the district, and lie almost wholly within that

portion devoted to housing. In the blocks between Hanover and Salem streets, a distance of 300 feet, and between Charter and North Bennet streets, a distance of 450 feet, there are many small lots for which no satisfactory public open space is provided. Irrespective of restrictions imposed by present building laws, with street and property lines as they now are, practically all that land more than 50 feet from existing reasonable street lines is now occupied, or is destined to be developed in a way to become a more serious problem in the future.

Whether private owners can be led by new laws to develop the interior of the great blocks in a way to become a creditable or even a tolerably wholesome section of the city, seems doubtful because of the peculiar shape and sizes of the many land holdings, both small and large. Much has been done already to legislate against unwholesome conditions and more can doubtless be accomplished, but as long as the ground plan of the properties is radically wrong, undesirable conditions will continue to exist and will probably increase.

The rear lands that are too remote to be served by existing streets of reasonable width can be improved only by providing more ample public open spaces. In the construction of new streets it is possible for the city under present laws to take the remnants of lots that would otherwise prevent satisfactory development, and resell those remnants under suitable agreements or restrictions. It is also possible to take additional lands under the law of excess condemnation in case such a recourse seems necessary. In London and other cities entire blocks have been wiped out, and replaced by new and better buildings on improved lines, new streets have been opened where they will best serve, and lots have been made of such depths and sizes as will prove best suited to local requirements.

Any great improvement necessitates a large investment of public funds, and the question may reasonably be asked whether they are really warranted. Studies have been made for a number of changes in the North End, and are

shown on the general plan hereinafter described. This general plan, if carried out as opportunity offers, will be justified by the improvement in living conditions over which the city is the official guardian.

IX.—TRANSPORTATION FACILITIES.

Atlantic avenue and the adjacent piers are now used for railroad and water transportation and form an impor-

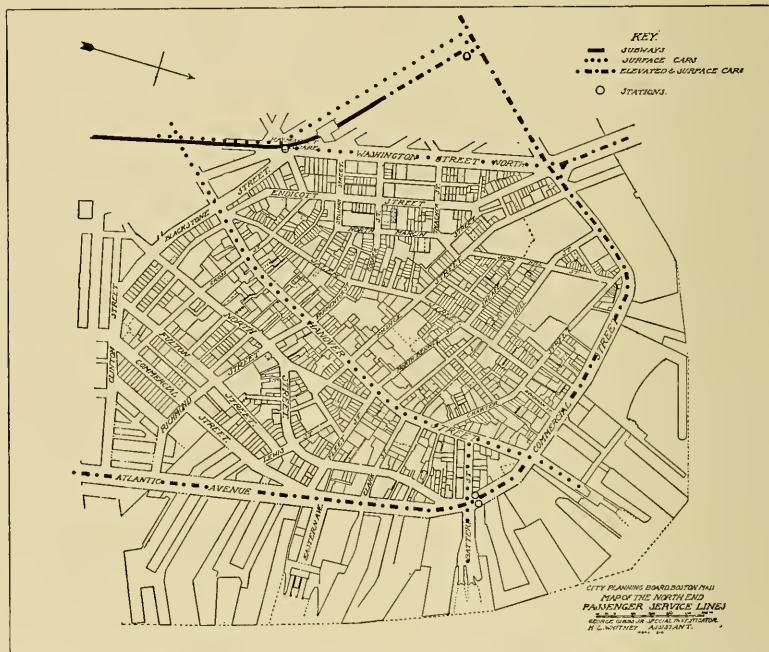


FIG. 9.—MAP SHOWING TRANSIT LINES THAT SERVE THE NORTH END.

Heavy black line — Subway and tunnel. Dotted line — Surface cars.
Dot and dash line — Elevated and surface cars.

tant factor in the city activities. Although they may be affected somewhat by the development of waterfront activities in South Boston and East Boston, these areas can never supplant the Atlantic avenue frontage entirely, as they are farther from the heart of the city.

The passenger traffic lines (Fig. 9) that affect the North End as they now exist are the Elevated through Atlantic avenue and Commercial street, the subway under Hay-

market square, and the surface cars through Washington and Hanover streets, Atlantic avenue and the northern portion of Commercial street, with the ferries at Battery street and Eastern avenue.

Through the center of the North End, running almost north and south, is Hanover street, a busy, important thoroughfare, which adequately serves the needs of the district between Washington and Commercial streets.

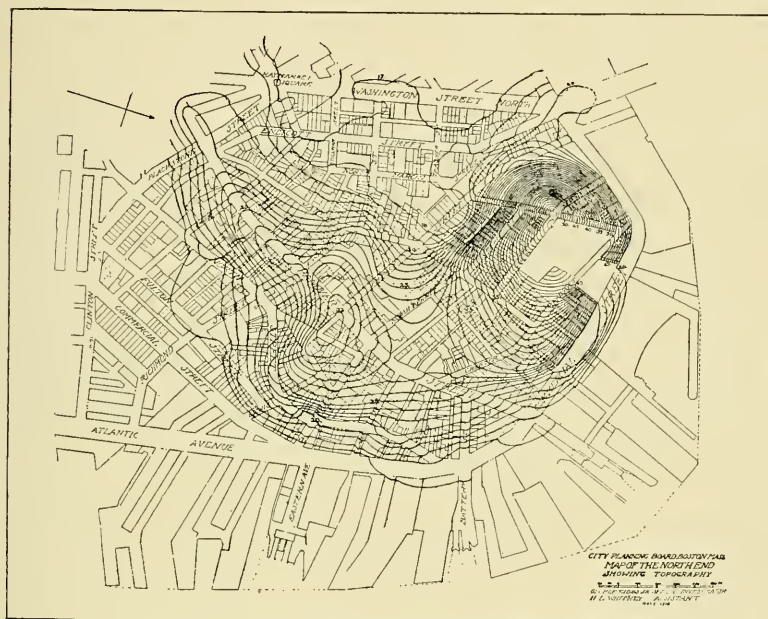


FIG. 10.—CONTOUR MAP OF THE NORTH END.

Contour interval — one foot.

An additional thoroughfare is no doubt needed, intersecting the area in the other direction, and connecting the Charlestown Bridge by a direct route with the market district. From the corner of Atlantic avenue and Clinton street to the entrance to the Charlestown Bridge the direct distance is a little less than 3,000 feet, while around Blackstone street through the crowded district it is over 3,600 feet, and around Atlantic avenue it is over 4,300 feet. Thus a new street between these two points would materially lessen the distance for general travel.

The cross-town travel from Clinton street to Haymarket square now crowds through Blackstone street and will probably continue to do so. East of this, vehicles going from Atlantic avenue to Haymarket square and from Atlantic avenue to Causeway street and the bridges to Charlestown generally follow Richmond, Parmenter and Cooper streets, or Richmond, North and Prince streets. For them the way is far from satisfactory and can be remedied only by the widening, straightening and extending of existing streets or by the opening of a new thoroughfare.

To widen Cross street, as has been many times suggested, would mean cutting through costly property, as shown on the diagram of total high valuations (Fig. 27), and would mean extensions through valuable buildings both to the southeast and the northwest. To improve the Parmenter or the Prince street route will mean the opening of a new street part of the way, but this improvement would pass through property of a much lower average valuation and would serve to open up several narrow streets, such as Salem street, whose great length now tends to make the lack of width still more serious.

The contour map (Fig. 10) shows that farther north no practical line for an important street on easy grades can be found. This indicates in a fairly definite manner the logical route for a thoroughfare to intersect Hanover street through the center of the North End District.

X.—DISTRICTS OR ZONES AND AREAS OF OCCUPANCY.

The downtown section of the city, including the North End and other nearby areas, is practically divided into zones or districts by the uses prevailing in each section. (Fig. 11.) The outlines of the various zones are somewhat irregular, but the separation is remarkably distinct and appears to be changing but little. The location and boundaries of each zone have resulted from gradual development, with no definite plan and with little controlling regulation.

The general office and financial zone centers around the Old State House and does not reach as far as the North End. The retail shopping zone extends north on Washington street to Haymarket square and down Hanover street. The market zone extends into the North End along and near Commercial, Fulton and Blackstone streets. The transportation and the storage and industrial zones follow the waterfront and Atlantic avenue and



FIG. 11.— MAP SHOWING THE EXISTING DOWNTOWN ZONES IN BOSTON.

Black — Offices and banking. Hatched — Retail shopping. Cross-hatched — Markets.
 Dotted — Industries and storage. Hatched and dotted — Rail and water transportation.
 White — Residences and accessories.

extend in a narrow strip between the market district and the housing zone and along Washington Street North. The North End District is devoted most exclusively to housing and accessory uses.

The importance of definite lines of separation is pointed out in a recent report of the New York Board of Estimate and Apportionment, Committee on Building Districts and Restrictions, in which they say that in general the maximum rentals are obtained where this segregation and

uniformity is most complete. They show that legislative control of the zones is needed because "the natural trend toward segregation and uniformity is not strong enough to prevent the sporadic invasion of a district by harmful buildings or uses," and that the danger of such invasion is great because "there are certain kinds of industry that seem to be free from any segregating force, that can locate

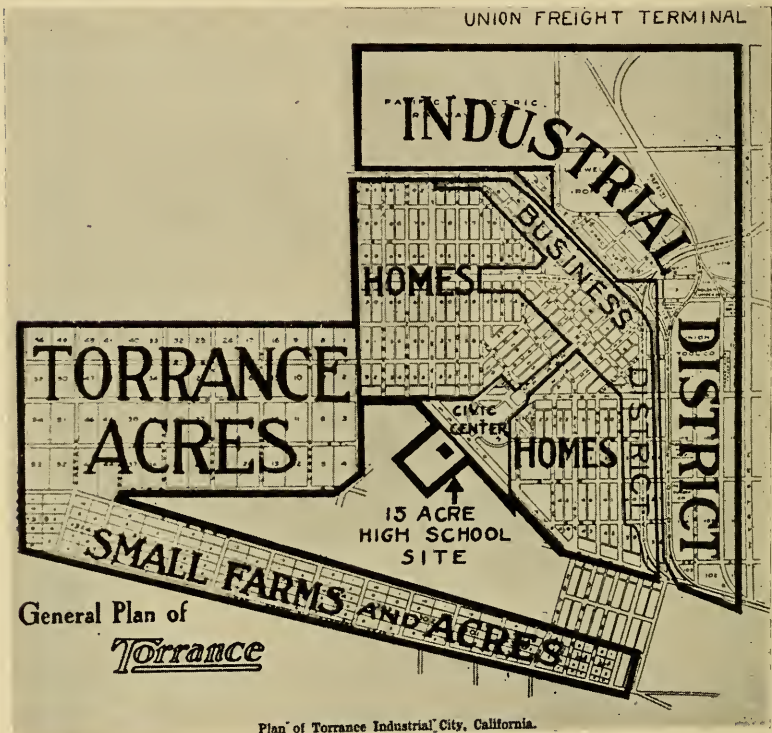


FIG. 12.—MAP SHOWING THE ZONES ESTABLISHED IN ADVANCE FOR TORRANCE, NEAR LOS ANGELES, CALIFORNIA.

indiscriminately throughout the city, in business or residential districts, especially in the sections from which their labor supply is recruited. Such factories tend to reduce values and rents in the districts they invade and to form the most serious menace to the attractiveness and value of the sections invaded."

The need for district protection in the North End has not been very great, but with the large investments being made

for housing, and the public expenditures involved, the need for protection is becoming more acute, and while there is today a great need for new buildings to supersede many of the old houses, the work of rebuilding is likely to be



FIG. 13.— MAP SHOWING AREAS USED FOR RESIDENTIAL AND ALLIED PURPOSES.

Black — Residences only. Dark — Stores and residences. Light — Accessories. B — Bakeries.
 Blank — Vacant land. Diagonal cross — Stable. Cross — Cemetery.

further postponed as long as the land has a speculative value for other uses, even though that value is not likely to be realized. And so long as there is danger of depreciation of present values through undesirable invasion, lack

of restrictions probably tends to discourage the much needed investment of private funds.

The "Housing District," the principal section of the North End, is in turn subdivided into several less definite sections by the character of occupancy. In some places the buildings are almost entirely boarding or lodging houses. Other sections near the Old North Church, on Hull and Salem streets especially, still contain single houses,



FIG. 14.—MAP SHOWING ORIGINAL AREAS AND PROGRESSING EXTENSIONS.

but these are gradually giving way to tenements. The hotels are more or less scattered on chance sites. In the center of the district there is a veritable civic center in and about the Prince Street Playground, where schools, the library and public open spaces occupy a considerable area. Along the main street, practically all the houses now have stores on the ground floor, but on the narrow streets and interior lots they do not predominate.

The "Housing District" is divided into three more or less distinct sections by Hanover and Prince streets, each

section of which contains about one third of the population and about one third of the housing area.

The actual areas of the districts and zones in acres may serve to show their relative importance and the character of the North End.

GROSS AREAS COMPARED IN THE NORTH END.

Original area north of the Old Canal (now Blackstone street)	63.5 acres.
Present area north of Blackstone and Clinton streets and east of Washington street . . .	160.0 acres.
Present area inside of and including one half of the wide streets surrounding the housing district,	91.6 acres.
Present area inside the real housing district . . .	66.77 acres.
Area of North End Beach, outside of, but reserved for the use of the housing district	6.7 acres.

AREAS CONSIDERED IN ESTIMATES OF PERCENTAGES.

Section I., East of Hanover Street; Section II., West of Hanover Street and South of Prince Street; Section III., West of Hanover Street and North of Prince Street.

	SECTION I. (Acres.)	SECTION II. (Acres.)	SECTION III. (Acres.)	TOTAL, NORTH END. (Acres.)
Area, exclusive of boundary streets	31.9	23.3	25.6	80.8
One half of inside boundary streets, Hanover and Prince	1.5	1.3	1.4	4.2
One half of outside boundary streets, Blackstone, Commercial and Washington streets	3.1	2.1	1.4	6.6
	36.5	26.7	28.4	91.6

ORIGIN OF AREAS.

	SECTION I. (Acres.)	SECTION II. (Acres.)	SECTION III. (Acres.)	TOTAL (Acres.)
Original portion	19.7	11.4	28.4	59.5
Fill to 1800	7.7	1.7	.....	9.4
Fill, 1800 to 1825	9.1	13.6	.....	22.7
	36.5	26.7	28.4	91.6

DETAILED USE OF AREAS IN EACH SECTION IN SQUARE FEET AND PERCENTAGES, NOT INCLUDING NORTH END BEACH.

	SECTION I.		SECTION II.		SECTION III.		TOTAL.		Classes.
	Square Feet.	Per Cent.	Square Feet.	Per Cent.	Square Feet.	Per Cent.	Square Feet.	Per Cent.	
Stores and residences.....	279,290	17.5	384,570	33.0	185,780	15.0	849,640	21.3	1
Residences only..	139,570	8.8	165,300	14.4	293,240	23.7	598,110	15.0	1
Factories.....	181,350	11.4	40,230	3.5	59,890	4.8	281,470	7.2	4
Market district...	229,830	14.4	2,340	0.2	.....	.....	232,170	5.8	4
Stores only.....	57,940	3.7	111,360	9.6	3,720	0.3	173,020	4.3	4
Schools.....	16,090	1.0	50,700	4.4	86,400	7.0	153,190	3.8	2
Vacant.....	4,890	0.3	5,200	0.4	* 97,580	7.9	107,670	2.7	3
Cemeteries.....	.....	.....	.....	.....	88,800	7.2	88,800	2.2	4
Churches.....	18,160	1.2	38,830	3.3	21,190	1.7	78,180	2.0	2
Recreation.....	.....	.....	.....	.....	† 45,250	3.6	45,250	1.1	2
Stables.....	20,840	1.3	20,660	1.8	.....	.....	41,500	1.0	4
Hotels.....	11,110	0.7	.....	.....	5,830	0.5	16,940	0.4	1
Fire—Police.....	11,510	0.7	2,570	0.2	.....	.....	14,080	0.4	2
Charity, etc.....	3,600	0.2	5,100	0.4	2,300	0.2	11,000	0.3	2
Gymnasiums.....	.....	.....	.....	.....	6,000	0.5	6,000	0.2	2
Library.....	.....	.....	.....	.....	4,900	0.4	4,900	0.1	2
Total lot areas,	974,180	61.2	826,860	71.2	900,880	72.8	2,701,920	67.8	

Remainder of areas in streets, alleys, etc.

CLASSES OF USES AND SUMMARY.

CLASSES.	SECTION I.		SECTION II.		SECTION III.		TOTAL.	
	Square Feet.	Per Cent.	Square Feet.	Per Cent.	Square Feet.	Per Cent.	Square Feet.	Per Cent.
1. Residences or stores and residences.....	429,970	27.0	549,870	47.3	484,850	39.2	1,464,690	36.3
2. Residence accessories.....	49,360	3.1	97,200	8.4	† 166,040	13.4	312,600	7.8
3. Vacancies.....	4,890	0.3	5,200	0.4	* 97,580	7.9	107,670	2.7
4. Extraneous or stores only.....	489,960	30.8	174,590	15.1	152,410	12.3	816,960	20.5
Total lot areas.....	974,180	61.2	826,860	71.2	900,880	72.8	2,701,920	67.8
5. Streets, alleys, etc...	617,170	38.8	335,770	28.8	336,465	27.2	1,289,405	32.2
Grand total.....	1,591,350	100	1,162,630	100	1,237,345	100	3,991,325	100

* Portion of Gas Company property, now practically unused, classed as vacant.

† Benefits also from North End Beach, 6.7 acres, 209,737 square feet.

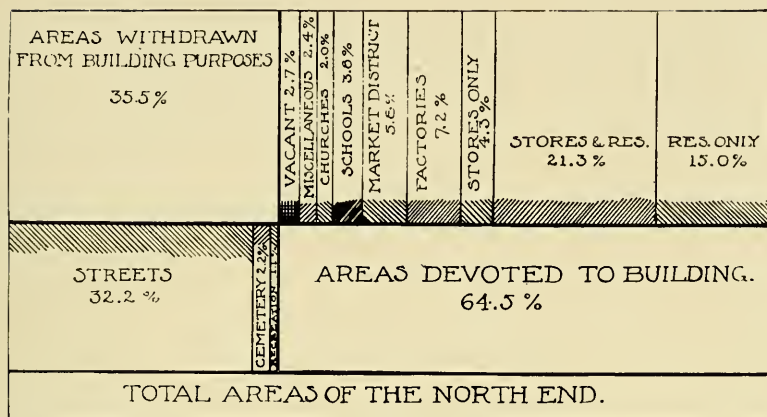


FIG. 15.—DIAGRAM SHOWING RELATIVE EXTENT OF AREAS DEVOTED TO VARIOUS USES.

To the recreational area might be added also that portion of the school yards now opened for recreation a part of the time.

XI.—RECREATION GROUNDS AND OPEN SPACES.

Nearly 8 per cent of the area within the district surrounded by the wide streets, together with the North End Beach, is now devoted to park, playground and beach purposes.

The areas are approximately as follows:

North End Beach, acquired in 1893:

Recreation Pier.

Land for playground 3.7 acres.

Flats (available only for bathing) 3.0 acres.

Copp's Hill Terraces 0.6 acres.

Prince Street Playground, acquired in 1897, 1899 and

1901 0.4 acres.

Total 7.7 acres.

In addition to these acres there is some open space around the school buildings, especially at the Hancock

School, amounting to about 0.8 acre, and there will be more about the new building on Charter street.

One large open space, at present not available for purposes of recreation, but possessing distinct historical value, is the Copp's Hill Burial Ground, still occasionally used for interments. It comprises a little over two acres and is situated on the highest point of land in the North End, overlooking the Copp's Hill terraces and the North End Beach, to the harbor beyond. The grounds are now walled up to a level considerably above that of the surrounding streets, with approaches from Hull and Charter streets. The area is fenced in, and is open to the sight-seeing public, subject to certain regulations and restrictions.

A small but favored open space is North square, which provides a fair sized outdoor meeting place, in which the residents of the district congregate. There is thus in the North End a total of nearly eleven acres, including three acres of beach and flats, of publicly owned property not devoted to building purposes. The question has been justly raised as to how much area is required in the congested portions of a city to offset the lack of public yards and the distance from the open country. Five per cent of the area in each city has been suggested as a minimum to be set aside for play spaces and small parks, with additional space of possibly another 5 per cent in a few large parks. Although over 5 per cent of play space is already available in the North End, it is, owing to the character and locations, inadequate, and the tremendous crowds living in the district turn at every opportunity to the public parks and streets for rest and recreation. A few can go to the more remote parks, to Boston Common or the banks of the Charles River; a few can get out on to the harbor, especially by the ferries; nearly all can get away occasionally, but the majority must turn to the streets or the local open spaces for their daily outing. The population of over 30,000 living on less than 100 acres should be able to turn out into public open spaces on Sundays and holidays, and especially on hot summer evenings. For them most of the local streets are too

narrow and too high walled to afford much relief. Of the total population in the North End it seems fair to assume that at times nearly one half would turn to nearby playgrounds and open spaces if such were available. Whether more than half must be provided for is questionable, as some will be detained at home, some will go to the more remote places, and many will remain in the doorways and adjacent streets.

Under the prevailing method of directing the use of the playgrounds it has been found that persons can be kept healthfully busy or amused at the rate of 1,000 to the acre. Under favorable conditions, with segregation of those who prefer quiet rest, those who wish to exercise vigorously, and those who wish to play quietly in small groups, and by providing for them pleasant surroundings, with plenty of light and air, it is possible that this proportion may be justified. On the basis of 1,000 persons to the acre, one half of the present population of the North End would require 15 acres or nearly double the present area available. However costly the additional space may prove it will still be necessary for the city to do more for the district if health and comfort, and even a fair chance for producing strong and useful citizens, is to be made possible.

XII.—DISTRIBUTION OF POPULATION.

The population of the North End, according to the 1915 census, is 35,210, or an increase of practically 30 per cent over the census figures of 1905 — 27,165. These figures include the persons residing on nearby waterfront properties, 248 in 1915, and 324 in 1905, or a decrease of 76 persons in this particular locality. Of the total number, slightly over 6,000 were registered as regular pupils in the schools of the district. It has also been estimated that there were fully 4,000 children under the school age, or a total of over 10,000 children under approximately fifteen years of age. A marked decrease is apparent in the upper grades of the elementary schools which, in the opinion of the School Committee, is probably due

to business conditions, as revealed by the great increase in the number of working certificates issued during the school year.

The fifteen years previous to 1905, according to figures taken from a report of the Bureau of Statistics of Labor,



FIG. 16.— MAP SHOWING DISTRIBUTION OF POPULATION 1905.
Each dot represents 20 persons.

show an increase of about $7\frac{1}{2}$ per cent, or a population of approximately 25,000 persons in 1890.

The population of the North End will doubtless continue to increase as long as there is space available, and this space may be greatly enlarged since the present average

height of buildings used for residences, or for stores and residences, is a little less than four stories (3.90), while the practical limit for height of residential buildings under the existing laws is five stories. Above that height first-

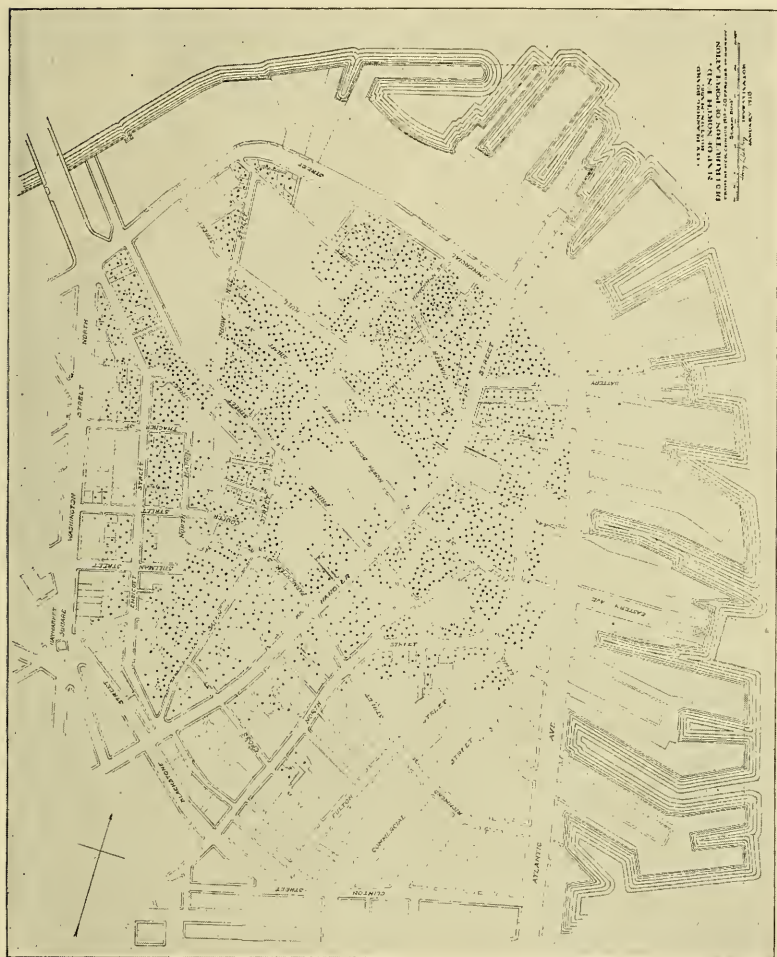


FIG. 17.—DISTRIBUTION OF POPULATION. BLOCK CENSUS OF 1915.

Each dot represents 20 persons.

class construction is required, and slightly larger yards and courts, although tenement houses four stories in height also carry special requirements with regard to egress.

To show how serious this increase may become, if the entire area of private lands now devoted to housing,

amounting to about 1,500,000 square feet, were rebuilt, and if one third thereof was required for new streets, courts and yards, there would still be available for building 1,000,000 square feet of space. If the lower floors were entirely used for stores and the four floors above for apartments, this would mean 4,000,000 square feet of floor space in apartments, 25 per cent of which might serve for halls, baths and wall spaces, leaving 3,000,000 square feet available for living rooms. The building law requires that rooms shall be not less than $8\frac{1}{2}$ feet high in the clear, and if all rooms were of this height there would be over 25,000,000 cubic feet of air space in the tenements. Under present health regulations requiring 400 cubic feet of space for adults and 200 for children, it is estimated that 12,000,000 cubic feet in all would serve, or less than one half the space estimated to be possible in building not over five stories in height on the area now used for housing.

From these facts it would seem evident that concentration may yet become more serious and that the population may eventually double in five-story buildings, or may become greater in higher buildings. It is not likely that all space will be used to its utmost capacity, especially as the present property lines are not favorable for the most intensive use of the lands, and under private ownership complete rebuilding is not likely to occur, but it is possible that many buildings, hotels and even apartments may go higher than five stories, and that the present buildings may be remodeled and made higher to increase their capacity and thus a much greater population may come to live in the North End than is now there.

A comparison of the distribution of population of 1905 as against that of 1915 is indicated on the map (Figs. 16 and 17), each dot representing twenty persons. These facts are plotted from census records for each block. For purposes of convenience, four arbitrary districts have been established as indicated in the following table:

	1905.	1915.
1. East of Hanover street.....	8,006	10,015
2. West of Hanover and south of Prince street.....	9,713	11,066
3. West of Hanover and north of Prince street.....	9,122	13,881
4. Waterfront property.....	324	248
Total population of North End and adjacent water- front property.....	27,165	35,210

XIII.—HOUSING.

The great problem of the North End residential district today is housing. The conditions under which the people are living are of vital importance to them and to the city as a whole, and although still far from ideal, they are better than they were twenty-five years ago.

Mr. Lawrence Veiller, in his book "A Model Housing Law" (1914, page 4), defines what is generally understood as the housing problem as follows:

The housing problem is the problem of enabling the great mass of the people who want to live in decent surroundings, and bring up their children under proper conditions, to have such opportunities. It is also to a very large extent the problem of preventing other people who either do not care for decent conditions or are unable to achieve them from maintaining conditions which are a menace to their neighbors, to the community, and to civilization. . . . Housing reform is to be sought in many ways, but chiefly through the enforcement of wise laws; laws which will regulate the kind of houses that may be built, will compel the improvement of the older buildings as they fall into disuse, and will require all buildings in which human beings live to be kept in a sanitary and safe condition.

But legislation is not the only way. Much must be done through education, education of both tenant and landlord, and even of the community itself. The force of example some think will do much, but thus far that expectation has not been realized.

Considerable also can be accomplished by wise management, by the building of houses of a more attractive type; by encouraging the development of garden cities; by stimulating those who

like country life to live in the country or in the suburbs; by improved transit, thus making it easier for men to live out of town and journey to their work, and especially by the intelligent planning of towns and cities.

Housing evils as we know them today are to be found in dangerous and disease-breeding privy vaults, in lack of water supply, in dark rooms, in filthy and foul alleys, in damp cellars, in basement living rooms, in conditions of filth, in inadequate methods of disposal of waste, in fly-borne disease, in cramped and crowded quarters, in promiscuity, in lack of privacy, in buildings of undue height, in inadequate fire protection, in the crowding of buildings too close to each other, in the too intensive use of land.

Much can be accomplished towards overcoming such conditions by the city requiring:

First.— That all private lands have ample public street frontage.

Second.— That all new dwellings and tenements be designed to afford suitable living accommodations.

Third.— That all old houses not properly adapted to present uses be suitably remodeled or demolished.

Fourth.— That all habitations be maintained in good repair and in sanitary condition.

Fifth.— That ample means be provided for the enforcement of laws.

Housing conditions in the North End and in the city as a whole have been made the subject of numerous investigations and reports. In 1888 Prof. Dwight Porter of the Massachusetts Institute of Technology prepared at the request of the Eighth Ward Conference of the Associated Charities a "Report Upon a Sanitary Inspection of Certain Tenement House Districts of Boston." The result of his investigation led Professor Porter to disclose that if the same density of population existed throughout the city as prevailed in the six acres near Haymarket square, bounded by the outer lines of Charlestown, Cooper, Salem and Cross streets, it would mean a total population of 8,000,000 people.

A most exhaustive survey of the housing conditions of the rent payers in Boston in 1891 was published by the

State Bureau of Statistics of Labor, together with a report on the sanitary condition of the tenements and the nationality and employment of the occupants.

The total number of persons living in the North End at that time, according to this survey, was 25,259, of which over 90 per cent were living in rented apartments,—a percentage which there is little reason to think has been materially changed in the meantime.

In June, 1895, a special committee of the Common Council

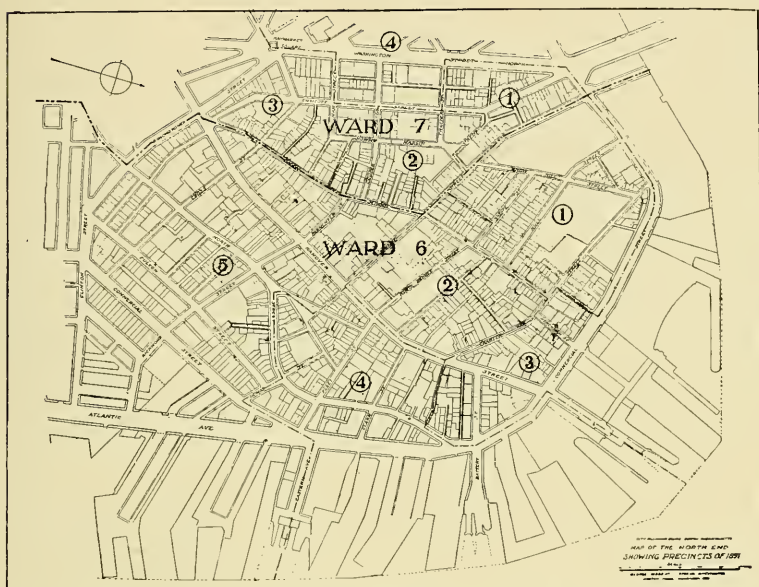


FIG. 18.—THE NORTH END. MAP SHOWING 1891 WARD AND PRECINCT LINES.

appointed to consider what improvement could be made in the tenement districts of Boston, and what legislation was needed to carry out such improvements, submitted a partial report. In the opinion of this committee, "In the North End today the tenement houses are a serious menace to public health." Their recommendations were largely confined to the enforcement of sanitary measures, while asking for further time to continue their investigation. Their final report was submitted in January, 1896, emphasizing the fact that the more densely populated

a particular place is, the greater the death rate, and suggesting the division "of the city into sanitary districts and the keeping of a tabulated statement of the deaths in each of these districts, believing that such tables would be of great value in bringing about the desired reforms, with reference to the tenement question."

In the report of the agent of the Tenement House Committee of the Twentieth Century Club, in 1898, attention is called to a preceding pamphlet, "Some Slums in Boston,"

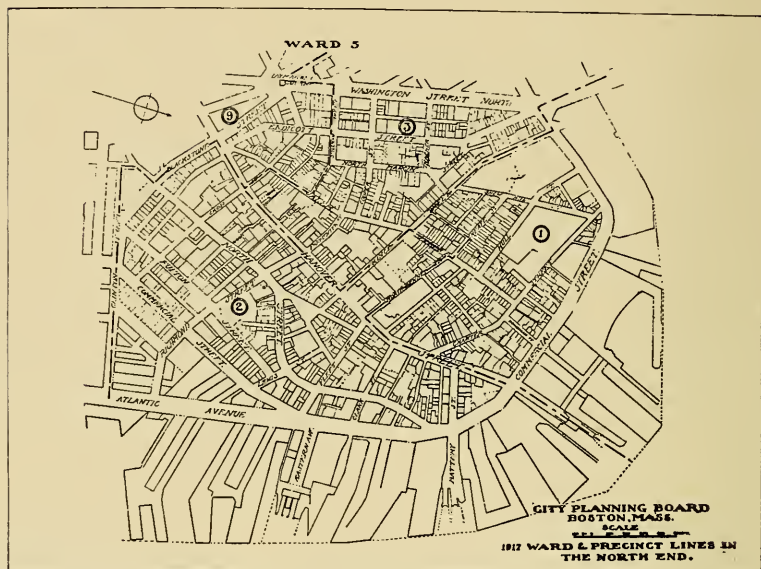


FIG. 19.—THE NORTH END. MAP SHOWING 1917 WARD AND PRECINCT LINES.

describing 64 houses which were typical of numerous insanitary homes in different parts of the city,—dozens of them in the North End District,—and declaring that "if Boston is to improve the condition of its tenement house districts radical action must be taken."

In 1899 the Bureau of Statistics of Labor of the Commonwealth of Massachusetts discussed in a labor bulletin certain tenement house conditions in Boston. The North and South Ends were canvassed with a view to ascertaining actual conditions and securing data for comparison with the

results obtained six years previously. The returns indicated an improvement in general conditions in the North End, due to the creation of the North End Park and the renovation in whole or in part of some of the houses under the inspection of the Board of Health. Some of the worst houses had in the meantime been closed to habitation, materially improved or demolished, while the gradual advance of business upon residential buildings had caused the removal of other houses with the result that the average number of persons to a room was slightly higher in 1898, when the second canvass was made, than in 1891.

The commission appointed by Mayor Collins in 1903 drew up "An Act Relative to the Construction and Maintenance of Tenement Houses in the City of Boston," endeavoring to codify in the act all existing provisions of law which appeared to the commission to be of permanent value, and to make such changes or additions as seemed to be in the interest of the future. The commission urged the closest possible coöperation between the Health and Building Departments, and suggested that the time might arise when a separate Tenement House Department might be necessary for the proper administration of tenement house laws.

The Housing Committee of the Boston-1915 organization discussed in its report to the Board of Directors in 1910, transportation, fire hazard, schemes for improved housing and the congestion of population in certain parts of the city and its bearing on the health and growth of the city as a whole. A minute investigation was made of ten blocks, two of which were in the North End, as being typical of the districts in which they were located. In the opinion of the agent who supervised these investigations, "In the North End there are no real indications of decreasing congestion, and there is much evidence of decidedly greater congestion."

In London, where slum conditions long ago became intolerably bad, the County Council has taken heroic measures to provide better homes and to prevent the spread of bad conditions over new areas. Local authorities there

may control the future growth of the towns by establishing limits for business, manufacturing and residential districts, by providing in advance for street locations, widenings and



FIG. 20.—PLAN OF BOUNDARY STREET AREA, LONDON, BEFORE IT WAS REBUILT.

Number of persons displaced, 5,719.

Number of persons provided for, 4,700.

Also 18 shops and 77 workshops.

Living rooms, 152 square feet.

Bed rooms, 103 square feet.

Every room has light at not less than 45 degrees.



FIG. 21.—PLAN OF BOUNDARY STREET AREA AS REBUILT.

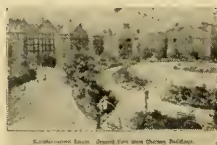


FIG. 22.—VIEWS OF BOUNDARY STREET AREA AS REBUILT.

other public services; and prevent overcrowding by limiting the number of houses to the acre.

In the city of London, under private ownership, no ordinary process of law could re-establish healthful conditions. The city has taken large areas and up to 1915 had displaced 19,336 persons and provided for 15,904 on about

52 acres divided in 10 areas, at a net cost of about five million dollars. One of the largest tracts, that known as the Boundary Street Area, rebuilt in 1890, displaced 5,719 persons, provided for 4,700 persons, 18 shops and 77 workshops, on about 15 acres of land. In this plan the living rooms averaged 152 square feet and bed rooms 103 square feet of floor area, and every habitable room received direct light at an angle of not less than 45 degrees.

This development is shown on the accompanying illustrations (Figs. 20, 21 and 22). The estimated cost was practically one and a quarter millions of dollars. This provided for approximately 300 persons to the acre at a net cost of about \$83,000 an acre, \$2 per square foot of land, or \$266 per person provided for.

The condemnation of insanitary dwellings has taken two forms in American cities: *First*, the clearing of whole areas either for purposes of some specific public improvement, such as street widening, bridge approaches, etc.; or, *second*, because they were slums and it was for the good of the community to get rid of them. In such cases the slums have been replaced with small parks and playgrounds. In New York a number of clearings have been made, notably in the case of Mulberry Bend, which was one of the worst slums New York had. It was located not far from the City Hall, and was a center of disease and crime. It was demolished under authority of a special act of the New York Legislature in 1887 and replaced by a park. Under authority of the same act several years later another slum was similarly destroyed, and Thomas Jefferson Park created on the site. About 1895 the notorious "Bone Alley," which was characterized as a "ragpickers' paradise," was also destroyed and in its place Hamilton Fish Park was created.

The city of Washington has a special board for the condemnation of insanitary tenements. A special branch of the Government under the Engineering Department of the District of Columbia was established and has for a number of years proceeded with the demolition of insanitary dwellings.

Other cities in recent years have done considerable in tearing down individual insanitary tenements. The city of Cleveland, Ohio, has done a vast work in this respect, having destroyed 405 buildings of this kind in four years and held vacant 566 others in that period.

In the meantime Boston has not been idle along similar lines. During the year 1917, 521 dilapidated and unsafe buildings were ordered taken down, 172 repaired and 57 houses ordered vacated as being in a generally insanitary condition. A great deal of work has also been done by the Health Department in regard to basement rooms. It is their intention to continue this work until the entire ground is covered and the illegal occupancy of such rooms for living and sleeping purposes entirely abolished. Up to December 1, 1916, 855 basements were examined, 280 approved, 340 vacated and notices served on 235 others.

Up to the present time no American city has followed the example of certain European municipalities in erecting new homes upon the sites thus cleared which had previously been occupied with slum dwellings. There are certain economic factors entering into the method of replacing slum districts with park areas which has prevailed in this country up to the present time, such as the loss of taxable values in the demolition of houses, the dispossessing of tenants, and the initial cost as well as the annual maintenance of park properties. Where legislative provisions do not exist, or prohibit such improvements being handled as distinctly housing problems, laws should be enacted which would permit development in a manner similar to what has been successfully carried out in foreign countries.

An amendment to the Constitution, empowering the General Court to authorize the taking of land to relieve congestion of population and to provide homes for citizens, was approved and ratified at the state election of 1915 by a vote of 284,568 to 95,148.

This amendment provided that:

The General Court shall have power to authorize the Commonwealth to take land and to hold, improve, subdivide, build upon, and sell the same, for the purpose of relieving congestion of

population and providing homes for citizens; *provided, however*, that this amendment shall not be deemed to authorize the sale of such land or buildings at less than the cost thereof.

The Homestead Commission thereupon introduced a bill into the Legislature embodying a plan and the method of carrying it out whereby, with the assistance of the Commonwealth, homesteads or small houses and plots of ground may be acquired by mechanics, factory employees, laborers and others in the suburbs of cities and towns. An appropriation of \$50,000 was accordingly made for this purpose and the experiment is already well under way in a suburb of Lowell.

The extent to which the aid of cities and towns may be invoked along similar lines is indicated by the following amendment to the Constitution, which was submitted by the delegates to the Constitutional Convention and ratified and adopted by a majority of the qualified voters of the Commonwealth on the sixth day of November, 1917:

ARTICLE XLVII.—The maintenance and distribution at reasonable rates during time of war, public exigency, emergency or distress, of a sufficient supply of food and other common necessities of life, and the providing of shelter, are public functions, and the Commonwealth and the cities and towns therein may take and may provide the same for their inhabitants in such manner as the General Court shall determine.

The general requirement in Boston that buildings shall not be higher than two and one half times the width of the street is far from satisfactory for crowded tenements where special and much more exacting legislation is needed. In most European cities the laws regulating the height of buildings are based on street widths, and the maximum height permitted is in almost every case under 80 feet. In London the maximum is 80 feet, except by special consent of the London County Council, while on streets less than 50 feet wide no building is permitted higher than the width of the street itself. This would mean that on a 40-foot street a 4-story residence could be built, thus conforming to the requirement that no habitable room shall



FIG. 23.— MAP SHOWING HEIGHT OF BUILDINGS IN THE NORTH END.
Hatched — 3 stories or under. Crosshatched — Over 3 and under 5 stories. Black — 5 stories or over.

receive direct light at an angle of less than 45 degrees. This requirement, however, is probably too drastic to be hoped for in the North End.

The present heights of buildings in the North End are shown on the map (Fig. 23). There are many buildings of over five stories, especially along and near the outside streets. Some are commercial buildings, six or more stories high, on large lots, along or near Washington, Blackstone, Fulton and Commercial streets, near to the market or the central business districts. Others are of five stories, more generally distributed, but chiefly on fairly wide streets or other public open spaces. A few are on the interior of ill-adapted lots. Three and four story buildings are distributed generally except near the market, around the Hancock School, and near Haymarket square, where a greater height prevails. Less than three-story buildings are few, most of them on narrow or interior lots in various parts of the district.

Inside the residential district the proportionate areas of lots devoted to buildings of each number of stories as shown on Fig. 23 have been estimated to be as follows:

4-Story	. . . . .	56.0 per cent
3-Story	. . . . .	26.7 per cent
5-Story	. . . . .	14.8 per cent
6-Story	. . . . .	1.4 per cent
2-Story or less	. . . . .	0.9 per cent
7-Story or more	. . . . .	0.2 per cent
Average height, 3.90 stories.		

To raise the average height to five stories would mean an increase of about 30 per cent in total floor area, and would mean a considerably larger increase above the first floor, since only 15 per cent of the total area of the district is devoted exclusively to residential purposes. This indicates the increased residential capacity that may reasonably be expected in the North End in the future under existing conditions and regulations.

The question of fire escapes in the North End, where buildings are so closely crowded, is a serious one. The

present law permits the use of balconies in certain cases, which provide egress through the adjacent buildings. Such balconies are not considered safe in New York, and seem open to criticism here, as they would prove useless in a fire that spread to the adjacent building, or if passage through the adjacent building were barred.

The location of exterior fire escapes is bad in many cases also, as they are too near to windows and to inflammable materials that may render them useless, though in existing buildings better locations may not be available.

Fireproof halls are much needed in the old buildings, especially where buildings are so crowded that outside fire escapes are likely to be rendered useless.

In the enforcement of the housing laws and regulations the city is today handicapped by the fact that the owner alone is held responsible for making changes or improvements, and it is often difficult to reach him.

A law is operative in New York which gives the city authority to proceed in making improvements, if the owner fails to do so, and to place a lien upon the property in case he fails to pay the proper costs, thereby saving the city officials many delays and difficulties.

The housing problem in Boston today is largely a question of improving tenement house conditions or encouraging the decentralization of population by proper suburban development. In some other cities the housing problem has taken a different turn. In Philadelphia, called the city of "A Million People in Small Houses," the small two-story houses in blocks are very popular, and they have spread as a matter of business. In Washington the single house prevails, though better homes for low rentals have been provided by the Sanitary Improvement Company and the Sanitary Housing Company, who have built large numbers of two-flat houses in blocks with two, three or four rooms each to rent from \$7.50 to \$13.50 per month.*

Improved housing can be brought about through the investment of private capital, especially as a public

* Before the war.

spirited enterprise with limited dividends. Private capital is ordinarily invested to earn as large a profit as possible, and to take advantage also of all increases in property values, and the profits so gained are not ordinarily returned to the benefit of the tenants. The public spirited housing enterprises, on the other hand, are organized to pay only a limited income on the capital invested, merely large enough to attract sufficient funds, and in such an organization the surplus, if any, is retained to extend the housing operations.

The Sage Foundation Homes Company of New York is established on a 4 per cent basis with large funds available for housing enterprises. The Octavia Hill Association of Philadelphia is organized on a 4 per cent basis with a capital of \$200,000. The Sanitary Improvement Company of Washington pays a 5 per cent dividend, has \$500,000 capital, and now controls nearly a million dollars worth of property. The Boston Coöperative Building Company is limited by statute to 7 per cent, but pays 5 per cent. It is now capitalized at \$300,000, and has a surplus of \$100,000 more. It has property in the North End and other parts of the city, maintained with a view to "provide suitable homes for working people, and to benefit the people living in them."

Several new and extensive housing ventures have recently been started under coöperative private enterprise in manufacturing towns, such as those in Kenosha, Wisconsin, and Bridgeport, Connecticut, in which millions of dollars are now being spent to provide houses for the laboring man at a cost within his reach.

Present activities along this line in Boston serve little more than to indicate what might be done, but if more or much larger enterprises of a similar nature were to be established here they would go far toward solving the housing problem.

XIV.—VITAL CONDITIONS.

Many evils to both mind and body result from congestion and bad housing, reflecting directly not only on the

business and social progress, but on the general welfare of the community and of the city at large. These evils are manifest not only in injury to the people themselves, but in the increased need for public expenditures to mitigate the evils or to afford necessary relief. Any attempt to prove these facts, or to estimate the expense in definite terms, is made extremely difficult because of the many factors that must be reckoned with.

As comparative statistics, such records as have been found available for the North End do not show alarming conditions of sickness or death, crime, disease, or delinquency that might be attributed to the environment. In fact, comparison with the city at large, or with other parts of the city where records of lower vitality are found, is not justified, since the vital effects of living in any district for a long or a short period can be measured only by a comparison of the conditions of the people on arriving, and at intervals thereafter, with one another or with those of their former associates.

Many of the people in the North End are recent arrivals that have come from the sturdy races of Europe, some from peasant life,— others from the southern European cities where, through many generations, they have persisted, in spite of crowded and insanitary conditions. The daily life of a large portion of the residents is spent in the open, in hard but invigorating work, outside the district, which tends to fortify them against the deleterious influences of the tenement and serves to maintain the average of health; but with the large number that are confined to the district, and the increase in the number that work in nearby factories, this advantage is likely to be less marked in the future.

The average annual death rate in the North End, about 16 per 1,000, is not so high as the average for the city. The average age of the residents of the North End is also lower than that for the city as a whole, due in part to the large number of immigrants in the prime of life who settle there and in part to the large number of children to be found in the district.

The birth rate is phenomenal, amounting to nearly 50 per 1,000 inhabitants in the last few years, while the average for the city is but little over 25. At the end of the first year the record for infants is still favorable, as the infantile death rate in the last few years is near 100 per 10,000 births, while that for the city as a whole is slightly higher. This fact again may be credited rather to the sturdy nature of parents and to the method of feeding than to the character of the surroundings.

Even though the children of the North End may have escaped epidemics and pestilence, and may have gained much from the advantages provided by the city and by private institutions, it is not to be expected that, having been subjected to the many disadvantages of a crowded tenement district during the formative and impressionable stages of growth, they will reach maturity so well fortified to resist the evils of congestion as were their parents or as were those more fortunate who have had the advantage of growth in the open country.

XV.—VALUATION AND FINANCE.

The valuation of real estate within the area surrounded by wide streets, as shown on Fig. 24, amounted in 1914 to about \$32,000,000 (on the basis of \$17.50 per thousand).

Of this amount one third is confined to a small section near the city center, as shown on the diagrams of high values. (Figs. 25 and 27.)

The 1914 valuation of personal property for Ward 6 (\$35,018,100) is small compared with the city as a whole, and while the ward covers much more than the area of the real North End, the population is for the most part confined within the boundaries as defined by the wide streets.

Of the \$32,000,000 land and building valuation in the North End nearly \$3,500,000 worth is withdrawn from taxation as city owned property, including schools, library, fire and police stations, together with religious and

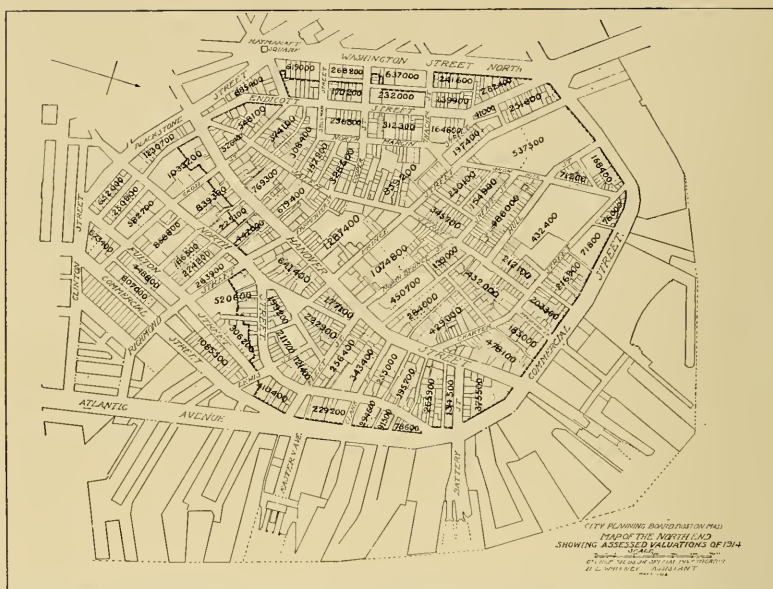


FIG. 24.—MAP SHOWING TOTAL ASSESSED VALUATION BY BLOCKS, 1914.

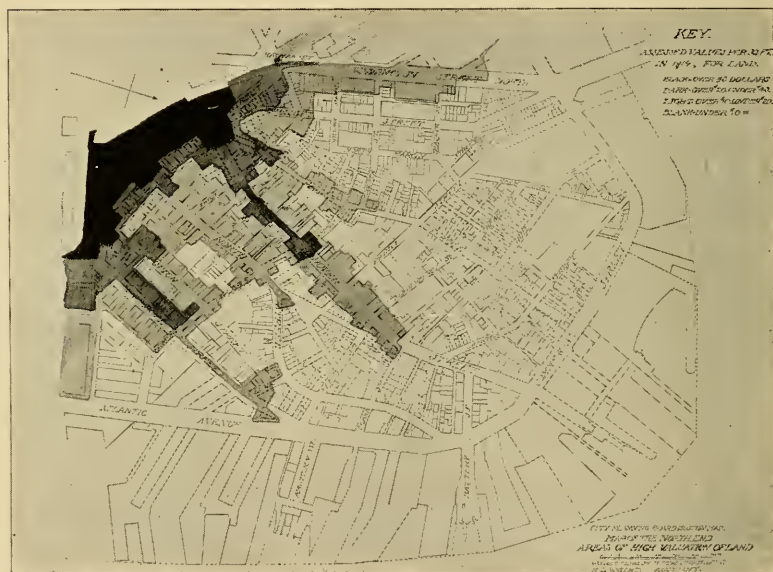


FIG. 25.—MAP SHOWING AREAS OF HIGH LAND VALUATION, ASSESSED AT \$10 OR MORE PER SQUARE FOOT.

Black — Over \$10 per square foot.
 Light — Over \$10 and under \$20

Dark — Over \$20 and under \$40.
 Blank — Under \$10 per square foot.

charitable institutions. This means a corresponding reduction in the tax return and also that the city properties, valued at nearly \$2,000,000, although free from tax levy themselves, must be cared for from municipal income.

The highest valuation of property is near the center of the city, following along the south side of the district, radiating northward along the main streets. Where adequate frontage facilities are lacking, land values are



FIG. 26.—MAP SHOWING AREAS OF LOW LAND VALUATION, ASSESSED AT \$5 OR LESS PER SQUARE FOOT.

Blank — Over \$5 per square foot.

Dark — Under \$3 and over \$2.

Light — Under \$5 and over \$3.

Black — Under \$2 per square foot.

depressed. In spite of this, the valuation of property for residential purposes in the North End is high throughout. The most apparent opportunity for benefiting the district, and thereby justifying the investment of public funds, lies in the possibility of providing low priced lots with the public services which they now lack.

In order to show the variations in values, two base maps have been prepared, one showing the assessed value of lands per square foot; the other showing the assessed

value of lands and buildings combined. From each of these maps two others have been made, showing the distribution of high values (Figs. 25 and 27), and of low values (Figs. 26 and 28).

The assessed value of land per square foot in the North End varies from about \$60 in the most favorable business location to about \$1 in the most remote and ill adapted sites. The value of the strictly residential properties

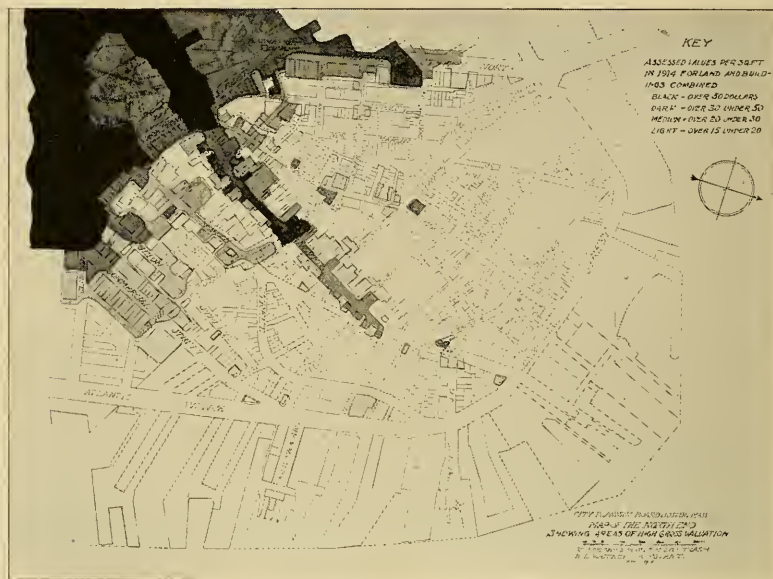


FIG. 27.— MAP SHOWING AREAS OF HIGH COMBINED LAND AND BUILDING VALUATIONS, ASSESSED AT \$15 OR MORE PER SQUARE FOOT.

Black — Over \$50 per square foot.

Dark — Under \$50 and over \$30.

Medium — Under \$30 and over \$20.

Light — Under \$20 and over \$15.

varies less, but is still out of all proportion to the advantages for residential purposes. The properties of high valuation are used in part at least for store purposes, while nearly all properties that are used solely for residences are assessed at less than \$5 per square foot. Property valued in excess of this must be paid for in part at least through other than residential uses. In New York tenement houses can be made to pay on land costing about \$10 per square foot.

The financial loss to the city through improper subdivision of the land, with shallow front lots and deep rear lots, has been already pointed out. This loss in the North End may amount to a very considerable percentage of the gross value of the area. It should and may be remedied by encouraging combinations as a result of careful adjustment of taxes and by the establishment of new streets and open spaces in the blocks of excessive depths.



FIG. 28.— MAP SHOWING AREAS OF LOW COMBINED LAND AND BUILDING VALUATIONS, ASSESSED AT \$10 OR LESS PER SQUARE FOOT.

Blank — Over \$10 per square foot.

Light — Under \$10 and over \$7.

Dark — Under \$7 and over \$4.

Black — Under \$4 per square foot.

To open new streets through the built-up areas will prove very costly, but it is possible if the housing laws are made more stringent and the method of local distribution of the cost more exacting, that improvements can become more largely self-supporting. Some, however, are needed chiefly for the good of the tenants, in which the cost to the city will be greater than can be assessed against the adjacent property. In such cases the city would be justified in paying a share of the costs, through the actual

saving of life and health, the increased efficiency of the tenants, the reduction in costs for relief and protective agencies, and finally in the general rise in taxable values of the district.

Many improvements should be and doubtless will be made, but the costs should be paid for so far as possible from the local increase in values so produced, and further costs, which may increase the efficiency of the community as a whole, can justly be paid for by the city at large as a matter of business financing.

The question then as to what can or should be done at once, or from time to time as demands warrant it, is first, what can the locality logically be expected to pay; and second, what can the city as a business matter afford to invest in such improvements, either to keep up present values and conditions, or better, to improve conditions, increase values and lead to greater business possibilities.

XVI.—LEGAL AND ADMINISTRATIVE REQUIREMENTS.

While it may not be difficult to determine what is needed to make a section of the city more satisfactory, and even to show what can be done within the bounds of reason, the result of such determination is rendered comparatively valueless under the present methods of making piece-meal improvements, in the absence of a comprehensive plan, and of permitting developments today that preclude the desirable improvements of tomorrow.

Mr. Frank B. Williams (in "*City Planning*," Nolen) says:

A most essential step in the planning of a city is the establishment of the plan on such a basis of law that it cannot with impunity be violated or departed from. This step would be taken as soon as the plan has been formulated without waiting for any of it to be carried out. Wise planning anticipates present needs by many years in order that present construction may conform to and aid proper future development. Wise planning covers the whole city in order that it may be planned as a unit.

Present construction executes only such parts of the plan as immediate need demands and financial ability permits. Even the acquisition to any extent of the land needed in the future seems difficult and often impossible. Thus the plan is a pattern, to be filled in from time to time, and unless at the outset the city has some method of making a general adherence to the entire plan binding upon the landowners, it is sure to fail of realization.

Owing to the isolation of the district known as the North End it is not essential that the plan extend over all Boston, as the problems are practically all local in character.

A plan for district restrictions as to height of buildings, percentage of lot covered, use of the buildings and classes of construction more exacting than the present restrictions is needed, and if proved reasonable can be made effective with comparatively little new legislation. The great problem, however, is to establish a plan that will prevent changes involving costly, if not prohibitive, obstructions on all areas that may be needed for public purposes in the future.

It would be possible for the city to adopt a complete plan, take all the properties in question and pay for them, and lease or rent the buildings or portions of buildings until the time seems right for reconstruction. Such action was taken in Denver in a number of areas acquired for park and parkway extensions, where buildings were allowed to remain only a few years. Any such action on the part of the city would mean a large initial expenditure, and a necessity for concerted action over a period of years, and would require a definite assurance that the improvements will be made eventually, possibly at the rate of 5 per cent a year for a twenty-year period. To commit the city to such future action might raise a question of policy, and yet such action differs but little from that now followed of doing costly work and postponing the payment through bond issues.

As any general plan for the North End must necessarily involve relatively large expenditures, and since changes in the plans can be made in the future if warranted, it seems

certain that a very considerable saving can be made to the city if the method of taking lands is revised to require that plans be filed, options obtained and all costs and proposed betterments determined before any taking is ordered. If takings be ordered only after such examinations have proved them reasonable, exorbitant demands or excessive jury awards can be avoided.

In the case of the new Fairmount Parkway in Philadelphia, which extends from the City Hall to a point on the banks of the Schuylkill river, the owners of the property involved testified in court at the beginning that its value was far greater than assessed, thus forcing the city to postpone the taking. Later the same owners again appeared to prove the real values of the property in order to secure an abatement from the increased taxes that followed their first action, and so made it possible for the city to acquire the property at a just valuation, and a cost far below that which would have followed less deliberate action.

The area devoted to housing in the North End will doubtless remain so for many years to come, and should be provided with an adequate amount of light and air. The restrictions as to air space per capita should and doubtless will be made more stringent, and should be still further conditioned on the size and position of windows both for light and for ventilation.

Most of the lot areas are already largely built over, but with rebuilding, except for corner lots, 20 per cent of the lot should be kept vacant.



CITY PLANNING BOARD
BOSTON - MASS.
THE NORTH END
GENERAL PLAN FOR IMPROVEMENTS.

SCALE
0 100 200 300 400 FT.
INVESTIGATOR:
APPROVED FOR 1934
AUGUST 1934

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XVII.—SPECIFIC IMPROVEMENTS RECOMMENDED.

In the North End, as has been shown above, there are many blocks containing rear lots and inadequate streets and alleys that can never become satisfactory until some radical changes are made. In a few cases, as in the triangular blocks between Hanover, Battery and Commercial streets, small lots have been so effectually combined under single ownership as to permit of better developments. In other cases, as that of the blocks between Fulton and North streets, and between North and Hanover streets, south of Cross street, the present use of interior lands by industries makes the need for change less urgent, and not of such vital importance to the residential district. There are, however, eleven blocks, or groups of blocks, in the residential district, which are seriously in need of development in such a way, with public open spaces, as to provide adequate light and air.

There are thirteen other blocks in the district where conditions, although not so serious, are still in need of improvement.

There is also the block now owned and occupied by the Boston Consolidated Gas Company. Should this property be ever diverted from its present use to residential purposes, careful plans should be made for its subdivision and development.

To improve each of these several blocks various plans have been considered, and the most suitable for each that will at the same time serve best for the district as a whole has been worked out as shown on the general plan (Fig. 29). The proposed improvements have been numbered and described in detail in the following sections.

PROPOSED MAIN THOROUGHFARE. (Numbers 1 to 12, Inclusive.)

Between the Charlestown Bridge and the wholesale market and cold storage warehouses there is no wide main

thoroughfare, so that produce teams coming and going to the northern part of the city, Charlestown, and the districts beyond, become congested and delayed on the narrow streets through which they now have to pass. If a main thoroughfare were constructed to relieve these conditions, it would pass through the North End section of the city.

The most direct route at easiest grade, and passing through properties that are not so excessively high in value as to make the cost of constructing such a thoroughfare prohibitive, is indicated on the general plan by Numbers 1 to 12, inclusive.

Other possible routes lying to the northeast and to the southwest have been considered and rejected for various reasons. To the northeast steeper grades would be encountered between Hanover and Commercial streets; while between Hanover and Salem streets such a change would interfere with the present grouping of playground, schools and gymnasium. In the block beyond Salem and Thacher streets any change to the northeast would be obstructed by a modern mercantile building of higher assessed value than the properties to the southwest where the line is indicated; while between Thacher and Commercial streets traffic would be so complicated as to make a difficult approach to the Charlestown Bridge. If the line were moved still further south, it would complicate traffic arriving at and departing from Washington Street North.

If, on the other hand, an attempt were made to relocate this proposed street farther to the southwest, the property valuations would be much higher. The cost of construction in this location would be increased because the distance between Atlantic avenue and the Charlestown Bridge over such a route is longer. Also, the present proposed street lines include streets that already exist, such as Parmenter, Richmond and part of Endicott street, so that for a greater part of the way it means no more than widening streets already determined. On the general plan this proposed main thoroughfare is shown 80 feet between buildings.

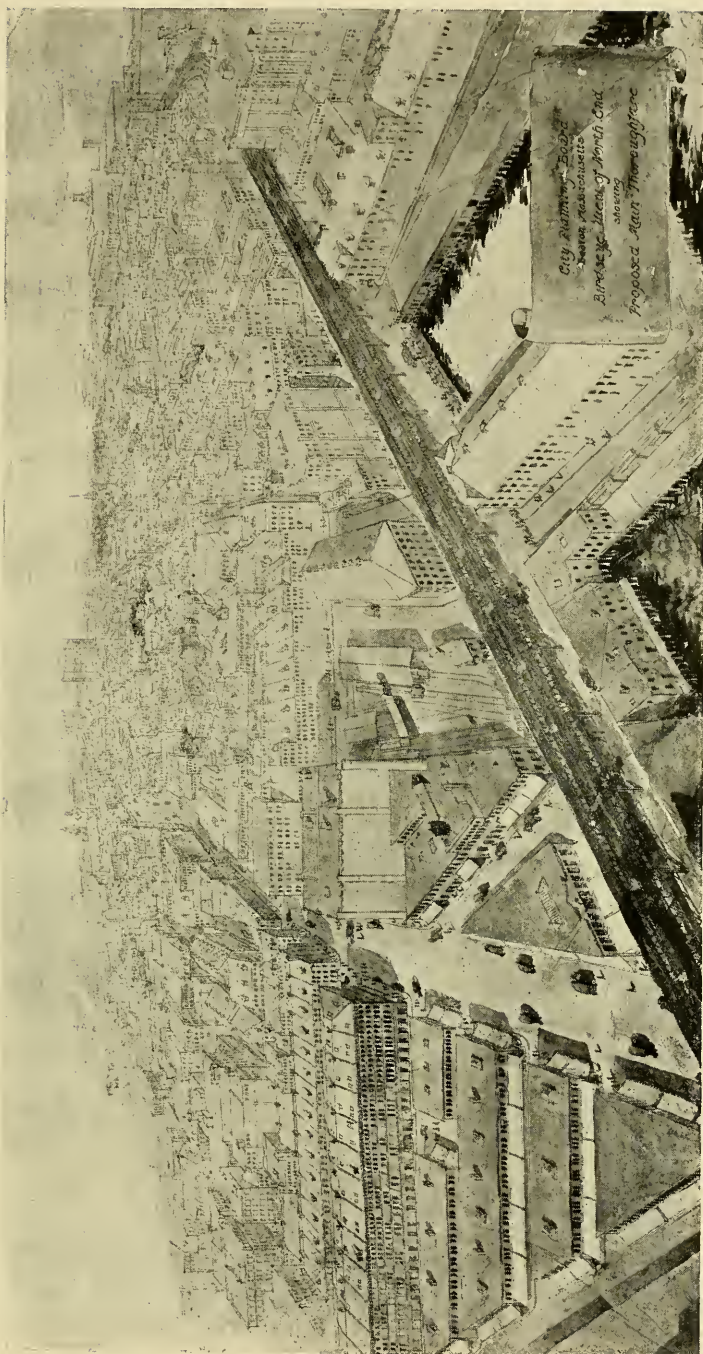


FIG. 30.—BIRD'S-EYE VIEW OF NORTH END SHOWING PROPOSED MAIN THOROUGHFARE.

Block 87, bounded by Atlantic avenue, Richmond, Mercantile and Clinton streets, is divided by the proposed street as shown on the general plan (Number 1). This block is used as a wholesale market, divided by streets and alleys for convenience in loading and unloading produce. By a rearrangement of the buildings, and a relocating of streets and alleys, there will still remain an equal amount of floor space, and at the same time an outlet will be afforded for the proposed new thoroughfare to Atlantic avenue at a convenient angle.

From Mercantile to Commercial streets (Number 2) there is shown a widening of Richmond street on the south side, cutting through a five and one-half story building and leaving a slight remnant. Any widening on the north side would be prohibitive on account of the existing seven-story cold storage warehouse at that point.

Between Commercial and Fulton streets (Number 3) Richmond street should be widened the entire distance on the northeast side, through five and six-story buildings; and for about half the distance, between Commercial street and Chair alley on the southwest, through a four and one-half story building. In each case the property taken is under the same ownership or control as large adjacent holdings, so no excess taking need be made.

Between Fulton and North streets (Number 4) the buildings on the southwest side are well developed on relatively shallow lots, and should be left intact. Those on the northeast side, Block 72, can be cut back and still leave satisfactory lots consisting of two large buildings.

Between North street and Hanover street (Number 5) fairly high buildings line both sides of the street, but there again the widening can best be made on the north side by taking away a row of buildings and leaving fairly large lots on the new line. There will remain a small remnant which should be acquired to be sold to the abutters or retained as a part of the street.

From Hanover street to Salem street (Number 6), Parmenter street should be widened on both sides, and the lot lines on the southwest side of the bank relocated, com-

bining remnant properties with excess takings, in order to provide building lots of advantageous proportions. The remnant properties remaining on the north side are under the same ownership as adjacent holdings.

West of Salem street and south of Cooper street the present arrangement of lots and streets is very bad. The



FIG. 31.—RICHMOND STREET, LOOKING SOUTHEAST; LONG BRICK BUILDING, NOS. 91 TO 103.

new street should be extended by a diagonal cut across the corner of the block (Number 7). With the exception of properties at the northeast corner of Salem and Wiget streets (Nos. 92 and 96 Salem and No. 3 Wiget), the remaining portions of the block, as far as the alley, together with Bartlett place, should be combined and lot lines relocated providing advantageous frontage on the

proposed new street. This change has been considered in connection with the improvement of Wiget street as discussed in Section Number 15.

Northeast of Cooper street (Number 8) the proposed new street line intersects the block, leaving a triangular



FIG. 32.—RICHMOND STREET, LOOKING SOUTHEAST; SHOWING CORNER OF NORTH STREET.

area at the corner of Cooper and North Margin streets, of which the corner lot should be taken by excess condemnation and combined with the several remnant properties. By a short extension of Baldwin place, and an extension of the present alley from Prince street, and its widening from Noyes place to Baldwin place, an outlet is provided for all three on the new thoroughfare, at the same time

doing away with the present excessive depth of the lot. On the northeast side of the proposed new street line, between Salem and Thacher streets, practically all of the present lot lines should be relocated in order to make proper provision for further development. The treatment of this block is further discussed under Section Number 14.

From North Margin street to Thacher street (Number 9)



FIG. 33.—PARMENTER STREET, LOOKING WEST, SHOWING CUSHMAN SCHOOL-HOUSE AND CORNER OF SALEM STREET ON WHICH NEW BUILDING IS BEING ERECTED.

The construction of the proposed main thoroughfare would necessitate the removal of this building. The number of similar cases to be dealt with would depend largely upon the delay in establishing definite street lines.

a diagonal cut is made across the corner of the block, leaving several remnants which should be combined with adjacent lots to be taken by excess condemnation.

North of Thacher street (Number 10) the proposed street will pass through the center of a small block now largely owned by the Boston Coöperative Building Company. This will leave a triangle at the corner of Thacher and Endicott streets, which can be made to lend itself readily to the erection of a well located business structure. North Margin street should be discontinued

between Thacher and Endicott streets and combined with the thin strip or remnants remaining on the northeast side of the new street line in order to provide building lots of adequate depth and frontage.

On Endicott street, between North Margin street and Lafayette avenue (Number 11), a small narrow block, now solidly built up to four or five stories in height, lies within the proposed street. A small strip along the northerly side of North Margin street will not be needed for street purposes and should be combined with adjoining lots to be



FIG. 34.— NORTH MARGIN STREET LOOKING NORTH FROM THACHER STREET.
Buildings on the left and in the background would be removed.

taken by excess condemnation. Lafayette avenue, a narrow street leading to Prince street, should be widened as referred to in Section Number 40.

From Lafayette avenue to the approach to the Charlestown Bridge (Number 12) the property on the east side of Endicott street has for the most part no costly buildings. A few shallow remnant lots will remain, and might be combined under one ownership, or possibly disposed of to owners of adjacent property. At the corner an additional taking should be made to widen Commercial street as far as Prince street.

An appropriate name which suggests itself for this proposed new thoroughfare is "Lafayette Street." Little need be said in justification of this recommendation, particularly at this time when the nation is more keenly alive to the events of history, past and present, than ever before. The North End is already particularly rich in historical associations, and this proposed street, which would link up many of its attractive features, might well bear the name of one who rendered substantial service to



FIG. 35.—ENDICOTT STREET LOOKING NORTH FROM CORNER OF ENDICOTT COURT.

Buildings on the right would all be removed.

this country in the War for Independence, and who did much to cement the amicable relations which have always existed between America and France.

ENDICOTT COURT WIDENING AND EXTENSION.

(Number 13.)

Endicott court is a narrow dead-end street, leading west from Endicott street. On the north side there is a row of small buildings that should be removed and the lots thrown into the street. The end of the court is blocked by a four-story building, No. 131 Washington Street North,

that should also be removed and the court continued, thus providing a through street about 30 feet wide from Endicott to Washington street.

THACHER COURT EXTENSION AND WIDENING.

(Number 14.)

Thacher court should, by means of a short extension, be connected through to Endicott court. There will remain a small remnant which should be combined with adjoining property.

WIGET STREET WIDENING. (Number 15.)

Wiget street is entirely too narrow for satisfactory housing. It can be widened uniformly only by reducing the depth of already shallow and small lots and by cutting through valuable lots on Salem street. This would involve a very large expenditure of money and would not produce entirely satisfactory results. It would be possible to remove the central lots on the north side of the street, thus providing ample light and air for the remaining buildings, and a small neighborhood open space in the center.

The remnants, together with Bartlett place, which should be closed, and the lots fronting thereon should be combined and the lot lines relocated to provide advantageous frontage on the proposed main thoroughfare.

MORTON AND STILLMAN STREETS IMPROVEMENT.

(Numbers 16, 17, 18.)

The improvement of Morton and Stillman streets was made the subject of a special report and recommendation as outlined in the third annual report of the City Planning Board. This investigation was undertaken at the request of representatives of civic organizations who were desirous of bringing about an improvement in existing conditions in the immediate vicinity of Morton street and the adoption of some plan for a wholesome development of the blocks in question.

The menace to life and health which has existed in the two blocks separated only by Morton street, a dark and

narrow alley, is difficult to describe. Little light and air penetrated the lower floors of buildings on this street, which was only eleven feet wide, and between walls forty or fifty feet in height. The blocks covered about one and one half acres, which would make six or eight suburban house-



FIG. 36.—VIEW OF MORTON STREET, LOOKING WEST
FROM SALEM STREET; 11 TO 14 FEET BETWEEN
WALLS. 1915.

lots for half a hundred people, but here it was cut into over fifty lots and housed over a thousand people, and this with three of the outside corners occupied by large factory buildings that monopolized the best exposures. Between the two blocks, Morton street, eleven to fourteen feet in width, and three alleys, four to eight feet in width, afforded access to the buildings and served as the dooryards and

playgrounds for many of the parents and children who had no better place to go. The alleys could not be kept clean and were often wet and foul. Sunlight seldom entered them and never reached many of the dismal homes in the crowded buildings.

These conditions were the result of gradual growth without design, foresight or even a fair appreciation of the seriousness of the situation. Nearly fifty years ago attention was called to the growing menace of overcrowding in buildings unfit for residence. Twenty-five years ago, before the rebuilding of a large section of the block, the city was urged to take the interior for a local playground. The tenants of the block were powerless to improve conditions; the owners could not without sacrifice of much of their invested savings, and relief could only come through philanthropic or municipal investment of relatively large sums of money.

The City Planning Board, therefore, made a careful study of this block, which was but one of a dozen similar large congested blocks in the North End, though it appeared to be one of the worst, taking into consideration every phase of the past, present and probable future conditions, and as a result of this study certain recommendations were made.

These recommendations provided for the removal of the apartment house opposite the end of North Margin street, through which space a street should be opened to Morton street. This thoroughfare might be curved to avoid cutting the rectangular lots on Morton street and to take advantage of the open space south of the Creamery. From the angle in this street a public passageway or alley could be made along the rear of the houses on Morton street through the existing passageway then privately owned. This would insure the maintenance of an opening much needed for light and air and fire protection. This passageway divided the Salem street frontage of the property, and could be relocated when buildings were replaced to follow the property line and thereby leave the lot in better shape for a larger building. While

only about four feet in width near Salem street, the passageway could be wider the rest of the way. The street extension should be not less than twenty-five feet wide.

Between Cross and Stillman streets were practically six rows of buildings with only two reasonable frontage spaces, and both of these very narrow. With the removal



FIG. 37.—MODEL OF BLOCKS ADJACENT TO MORTON STREET, LOOKING FROM SALEM STREET, SHOWING CANYON-LIKE STREETS AND ALLEYS BETWEEN CROWDED BUILDINGS.

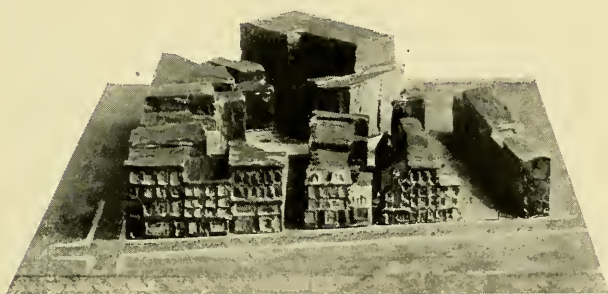


FIG. 38.—MODEL OF BLOCKS ADJACENT TO MORTON STREET, LOOKING FROM SALEM STREET, SHOWING BUILDINGS REMOVED AS PROPOSED BY CITY PLANNING BOARD.

of one row on Stillman street and one row on Morton street along the south side, there would remain only four rows, one between Morton and Cross streets that is very deep and needs a double frontage, one north of Morton street, and two on one lot near Stillman street that would doubtless be rebuilt as they were unfit and vacant. As a short street of local interest, Morton street was left

narrow at each end where it passed between properties of high valuation. Between these points, after the removal of the row of buildings, would be a space fifty or sixty feet in width. If a narrow walk and a nine-foot roadway were carried along each side, the central area could be reserved as a small outing place for the neighborhood.

A few remnants of lots on the south side would remain.

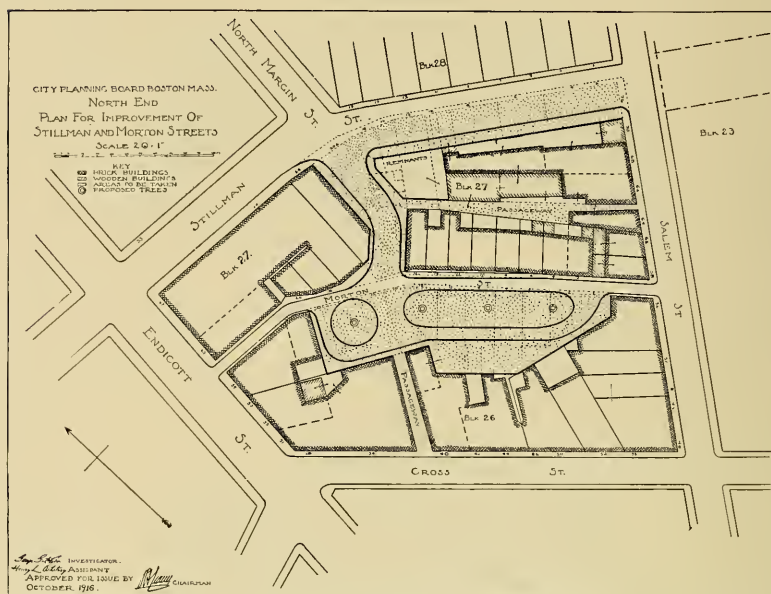


FIG. 39.—PLAN FOR IMPROVEMENT OF MORTON AND STILLMAN STREETS, AND EXTENSION OF NORTH MARGIN STREET, IN A WAY TO LEAVE EVERY LOT WITH SUITABLE FRONTAGE, AND NO LOTS OF EXCESSIVE DEPTH OR EXTREME SHALLOVNESS.

These could be taken by the city as an added walk space, or those remnants owned by the owners of adjacent property could be left for space in which to reface the adjacent buildings, the others to be sold to adjacent owners also if desired.

The existing passageway to Cross street should be opened through as a public way, while Morton street and North Margin Street extension should be closed to general traffic to serve as a local recreation space.

Between North Margin and Salem streets, Stillman street was only about eighteen feet wide, but could have been made forty feet wide if the row of buildings along the south side were removed. This would involve some costly property, but would be offset in part at least by



FIG. 40.—STILLMAN STREET, LOOKING EAST FROM NORTH MARGIN STREET.

On account of the darkness of the narrow street it was necessary to take a time exposure.

the increase in value of the large interior property which would then be located on the corner. Some remnants would also be left at the corner of the proposed North Margin Street extension that should be acquired by the city to be combined and resold.

The plan was for many months under consideration by the Mayor, the City Council, the Street Commissioners,

the Finance Commission, the Chamber of Commerce, and the various interested charitable and improvement organizations. It received almost unanimous approval, though the Finance Commission advised delay until a complete plan for the city could be prepared. The Street Commissioners reported doubt as to the need for wider streets, and as to the legality of taking land for widening a portion only of a street, and proposed that more of the interior of



FIG. 41.—THE NORTH END. PHOTOGRAPH SHOWING AREA WHERE BUILDINGS HAVE BEEN TORN DOWN IN MORTON STREET DISTRICT TO MAKE ROOM FOR PLAYGROUND DEVELOPMENT.

the block be taken to be converted into a local playground of half an acre. On this basis the improvement is being made as shown on the general plan. As a playground problem the change is for the better; as a housing problem it drives out some additional tenants who might have remained under improved conditions, and it leaves less space and less inducement for the construction of better buildings with better surroundings. As a financial problem it represents more land acquired by the city at about the same first cost of \$200,000, but it does not provide for the collection of betterments, and it probably will not lead

to an increase in taxable values of adjacent property. It is estimated that the first plan would cost at the end of twenty-five years about \$225,000 or less, as against \$375,000 or more under the revised plan.

While the advantage of the larger area of playground to the neighborhood will be very great, and the need for it is evident, the question may well be asked whether ultimately it would not have been better to extend the improvement over a larger number of blocks, and to provide for housing a much larger number of persons under improved conditions than to provide a single playground at a cost that is not likely soon to be repeated in many of the other blocks that sorely need public attention.

NORTH HANOVER COURT WIDENING AND EXTENSION. (Number 19.)

North Hanover court, leading westerly from Hanover street, should be widened on the northerly side by the removal of four and five story brick buildings at the corner, leaving one small remnant under the same ownership as adjoining properties, and old wooden buildings in the rear, including at the back the narrow alley now known as Anthony place, thus eliminating two narrow and unsatisfactory passageways. It should also be extended to Salem street, through several lots now occupied by wooden houses under a single ownership.

BOARD ALLEY WIDENING. (Number 20.)

Board alley is a narrow foot-passage leading from Hanover street to North street, with an average width of a little more than four feet, lined on both sides by high brick buildings. The widening should be made on the northerly side, providing for a uniform width of forty feet. In this improvement remnants will be left that should be taken, together with all the small, unsatisfactory rear properties on the south side of Keith's alley, with which they should be combined to form better lots fronting on this new widening.

MECHANIC STREET RELOCATION AND EXTENSION.
(Number 21.)

Mechanic street should be widened in the central portion by acquiring the adjoining vacant land, and should be extended through to North street to meet the end of Ferry street. This improvement comprehends the taking of a five-story brick building fronting on North street and the passageway now running under a portion of this and the adjoining building.

MECHANIC COURT. (Number 22.)

Mechanic court, a small open space under the same ownership as the four-story brick houses by which it is surrounded on three sides, should be acquired by the city and preserved as a public open space.

LANGDON PLACE EXTENSION. (Number 23.)

Langdon place is now a dead-end street leading southerly from North street. It is at the present time connected with Fulton street by means of a passageway under existing buildings. These buildings should be taken, and Langdon place extended through to Fulton street. This improvement leaves two remnant corner properties, fronting on Fulton street, which should be readily disposed of.

NORTH SQUARE IMPROVEMENT. (Number 24.)

The center of North square is now much used as a public gathering place and could well be protected by a curbstone and made a simple graveled area with a few seats, and a tree or two to make it more attractive.

PAUL REVERE PARK (PROPOSED). (Number 25.)

In the block which contains the Paul Revere House there are several lots of excessive depth, and a number of dwellings on interior lots without proper street frontage or adequate light and air. Certain of these lots should be taken to form a small public park, which will answer the requirements of the immediate locality as a small

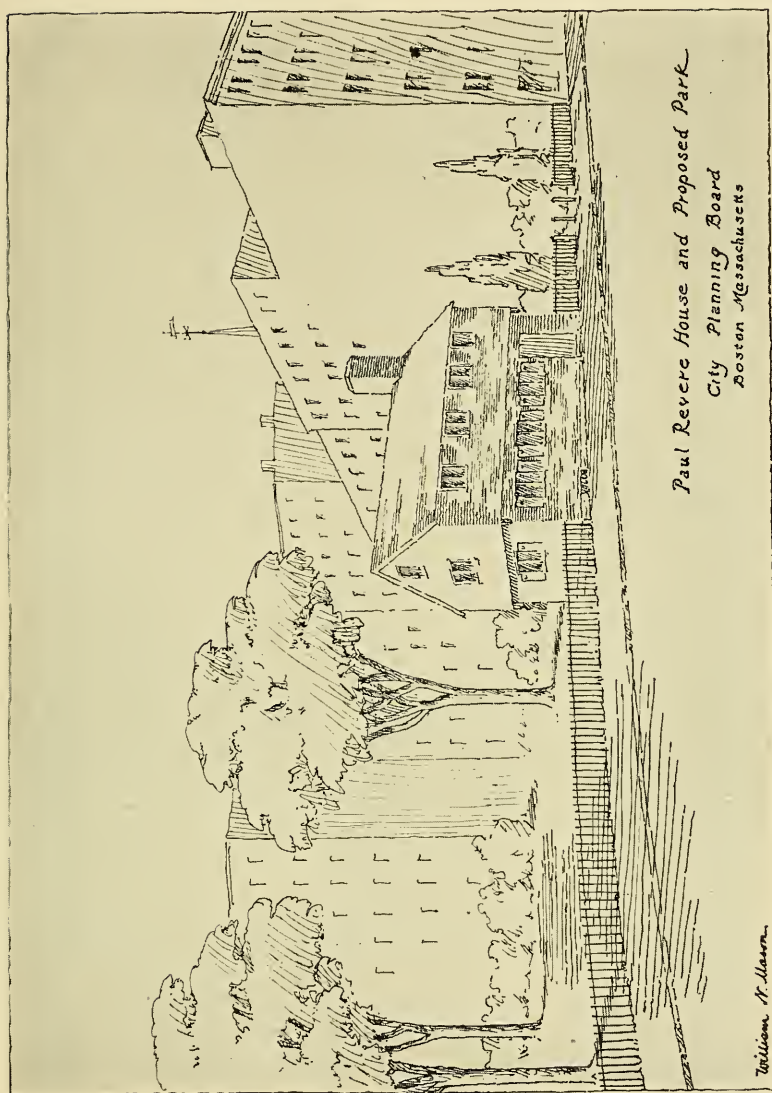


FIG. 42.—SKETCH OF PROPOSED PAUL REVERE PARK.

recreation space, a feature which is now lacking. The buildings adjacent to this proposed park will thereby be afforded an attractive outlook, together with a sufficient amount of light and air. At the same time it will constitute an appropriate setting for the Paul Revere House itself which has been, and should continue to be, carefully preserved by a historical society. It will also materially lessen the fire risk in connection with this ancient wooden building.

LOTHROP PLACE. (Number 26.)

Lothrop place, a private passageway running southeast from Hanover street, should be taken over by the city, thus affording a direct connection from Hanover street to the proposed Paul Revere Park.

THE CUSHMAN AND HANCOCK SCHOOL GROUNDS.

(Numbers 27 and 28.)

Most of the schools, both public and private, in the North End have very little playground space adjoining. The Hancock and Cushman schools, however, have together about eight tenths of an acre. Owing to the location of the buildings, the playground area is divided in such a manner as to lose many of its advantages as an open space. If the properties Nos. 4 and 5 Wesley place were acquired (Number 27) the school yard would be not only enlarged but made much more available, and with direct connection through Wesley place to Hanover street.

By the acquisition of properties Nos. 40 and 42, 46 and 52 Prince street (Number 28) the Hancock School would be provided with additional yard space and a desirable frontage on Prince street.

PRINCE STREET PLAYGROUND. (Number 29.)

Prince Street Playground, comprising about 0.4 acre, was acquired by the city in 1897, 1899 and 1901, at a cost of \$180,000 for the land and approximately \$10,000 for

construction. It is a very important center, but it is far too small for the district, and can be advantageously enlarged by combining it with the Paul Revere school yard, and acquiring the four remaining properties in the rear of Nos. 34 to 40 North Bennet street. This would result in



FIG. 43.—WEBSTER AVENUE, LOOKING WESTERLY FROM HANOVER STREET.

practically doubling the playground area, and with this space available for recreation throughout the entire year, the needs of the district would be much better served than at the present time. Unity terrace will then provide direct access from the widened Webster avenue to the Freeman School property.

WEBSTER AVENUE AND UNITY STREET WIDENINGS.

(Numbers 30, 31, 32, 33.)

Webster avenue, a narrow public passageway from 10 to 12 feet wide, extending westerly from No. 374 Hanover street to No. 20 Unity street, should be widened. This can best be done by removing the four-story brick building at the southwest corner of Hanover street and Webster avenue, together with a part of the three-story wooden building in the rear, and buildings Nos. 10 to 26 Webster avenue.

From this point the widening should be made on the opposite side of the street, taking all of the properties on Oliver court, Washington place and Canney place, together with Nos. 27, 29, 35 and 37 Webster avenue and Nos. 16, 18 and 20 Unity street, in order to complete the Webster avenue widening which at this point merges with the Unity street widening (Number 33).

To complete the Unity street widening, properties Nos. 22, 24 and 26 Unity street and No. 39 Tileston street must be taken in addition. This widened portion of Unity street, together with the adjoining widened portion of Webster avenue, should be developed as a neighborhood park space as shown on the general plan, thereby opening up one of the worst examples of interior-lot conditions to be found in the district.

Leading northeasterly from Webster avenue are two private ways, Revere place (Number 31) and Unity terrace (Number 32), both of which should be acquired by the city and kept open as public ways.

MARGARET STREET EXTENSION. (Number 34.)

Margaret street, which now extends northerly between Prince and Sheafe streets, should be extended in the same general direction from Sheafe street to Hull street by passing through Nos. 11 and 13 Sheafe street and 10 and 12 Hull street. This removes several brick buildings of excessive depth, and provides proper frontage for two interior brick buildings now facing on Hull street court.

It affords also direct connection, by means of Snelling place (which is further discussed in Section 53), with the Pormort School property.

CLEVELAND PLACE WIDENING. (Number 35.)

Cleveland place, running westerly from Margaret street to Snow Hill street, is a narrow passageway lined on either side by high brick buildings. Except for local delivery purposes it is a foot passageway only. This particular locality has been made the subject of special investigations and reports by other bodies on several occasions. The street should be widened on the southerly side by the removal of No. 16 Margaret street, No. 4 Cleveland place, and No. 17 Snow Hill street, and the cutting back of properties Nos. 14, 16, 18 and 20 Cleveland place. The rear remnant properties on Cleveland place should be combined and resold. The property No. 10 Cleveland place is a large holding running through to Prince street, and therefore would not necessitate any rearrangement of property lines.

NOYES PLACE WIDENING AND BALDWIN PLACE EXTENSION. (Numbers 36 and 37.)

At the present time there is a narrow private alley leading southerly from Prince street to the Vermont Building property. This alley should be extended through to the proposed main thoroughfare, and widened from its point of intersection with Noyes place to a width of forty feet. This will leave remnants at No. 15 Noyes place and No. 9 Baldwin place which should be combined with adjacent properties, making a valuable location with a frontage on three sides, and in close proximity to the proposed new street.

Noyes place, leading westerly from Salem street, should be widened to a uniform width throughout. This can be done by cutting back the properties on the northerly side, Nos. 4 to 12 inclusive, leaving remnants which should be combined and lot lines relocated (Number 36).

Baldwin place should be extended until it meets the proposed main thoroughfare at approximately the same point as the alley extended from Prince street (Number 37).

Noyes place, Baldwin place and the alley leading from Prince street should all be taken over by the city and maintained as public ways. These three improvements will serve to open up the heart of a block which is now almost entirely given over to interior lot development. They also provide opportunity for the easy circulation of traffic, and afford street frontages for every remaining lot, at the same time giving to all three streets a desirable opening into the proposed main thoroughfare.

PROPOSED ALLEY RUNNING NORTHWEST FROM THACHER STREET TO THE PROPOSED MAIN THOROUGHFARE.

(Number 38.)

The construction of the proposed main thoroughfare through this part of the district as shown on the general plan makes advisable the closing of that portion of North Margin street lying between Thacher and Endicott streets, to be combined with the remnant properties remaining from the improvement as described in Section 10. Through the center of the block thus created there should be an alley at least fifteen feet wide to provide for rear access to the properties fronting on Prince street and the new street.

This alley should be constructed by taking properties now numbered 63 to 87, inclusive, on North Margin street. This will leave remnants on the south side which should be combined with the closed portion of North Margin street and the triangular remnant property remaining from the construction of the proposed main thoroughfare, which will permit of the location of lot lines affording excellent street frontages. On the north side there will remain one row of houses fronting on Prince street. It may be advisable to acquire the properties Nos. 3 and 5 Thacher street and 102 to 108, inclusive, Prince street, at present under one ownership, in order to arrange for a satisfactory relocation of property lines.

LAFAYETTE AVENUE WIDENING. (Number 39.)

Lafayette avenue is a short thoroughfare running northeasterly from Endicott street to Prince street. At present it is but a little over twenty feet wide, with high brick buildings on either side, and since many of the lots in the adjoining block are being relocated, this avenue should be widened to not less than forty feet. In the event of the ultimate subdivision of the gasometer property, this street will then afford direct access to the proposed main thoroughfare.

CAUSEWAY AND COMMERCIAL STREET WIDENINGS.
(Numbers 40, 41, 42, 43.)

Causeway street from Washington Street North to Prince street, and Commercial street from Prince street to just east of Charter street, should be widened throughout to a uniform width of one hundred feet.

From Washington Street North to Prince street (Number 40) the widening should be made on the south side by cutting back properties Nos. 283 to 293, inclusive, Causeway street and 166 Prince street. The small remnants remaining in the rear should be combined with adjacent properties to be taken by excess condemnation and the lot lines relocated in order to provide conveniently arranged building lots of adequate proportions.

From Prince street on (Numbers 41, 42 and 43), the widening should be made on the north side by cutting back properties owned by the New York, New Haven & Hartford Railroad and the Boston Elevated Railway Company, for the most part unbuilt upon at the present time.

NORTH HUDSON STREET WIDENING. (Number 44.)

North Hudson street is too narrow to be satisfactory and should be widened on the northerly side by cutting back a portion of the Boston Consolidated Gas Company property, Nos. 4, 5 and 6 North Hudson street and Nos. 55 and 46 Snow Hill street. The remnant properties remaining from these small lots might well be combined to form two or three lots of reasonable proportions.

SUBDIVISION OF GASOMETER PROPERTY. (Numbers 45 and 46.)

If it should ultimately be found advisable to subdivide the large area known as Block 1, bounded by Prince, Commercial, Hull and Snow Hill streets, now under the ownership of the Boston Consolidated Gas Company, and on which the large gasometer is at present located, it would be necessary to open up the interior of the property by the construction of new streets. This might be done by extending North Hudson street to Lafayette avenue (Number 45) and continuing Sheafe street to meet this proposed extension (Number 46). These streets would never become available for more than local use owing to the steep grades encountered.

COPP'S HILL TERRACES AND NORTH END BEACH AND PLAYGROUND. (Numbers 47, 48, 49 and 50.)

The land for the Terraces, or Copp's Hill, was acquired in 1893 at a cost of about \$91,000. It has been improved at a cost of about \$43,000, making a total of \$134,000 for about 0.6 acre of park space.

The Terraces were made useful and attractive at the start; the first work was of a dignified and monumental character, designed to last and to command admiration and respect, but the more recent additions are of a somewhat less imposing nature. The Elevated structure, with its noisy trains, also greatly reduced the value and utility of the property, pocketing the lower portion of the Terraces and rendering them practically useless as a recreation space.

The early plans contemplated a connection between the Terraces and the North End Playground by means of a bridge, but with the advent of the Elevated structure this plan was apparently abandoned. It is still quite possible, however, to construct a passageway immediately beneath the upper Elevated structure and well above the busy street (Number 48). Such a bridge, while connecting directly with the North End Playground by means of a



FIG. 44.—VIEWS OF NORTH END BEACH AND PLAY-
GROUND FROM RECREATION PIER.

flight of steps at the northwest corner, can also be continued by means of an elevated walk, at practically the same grade, to the recreation pier, passing over the men's bath house. From the recreation pier to the playground an easy incline already exists. This improvement would do away with the present danger to children in crossing Commercial street, with its numerous car tracks and heavy teaming, in order to reach the playground from the congested area surrounding their homes. It provides also satisfactory access to the playground and recreation pier for mothers with baby carriages since the grade is at no point severe.

Since the Elevated structure has greatly reduced the value of the frontage on Commercial street at the lower level and the lower terraced portions, greater value from the Terraces could doubtless be obtained by filling the lower area up to a higher elevation. This would permit the planting of several shade trees under favorable conditions. They would add much to the attractiveness of the spot and also serve as a protection from the sun's rays during the excessive heat of the summer.

The area now comprised in the North End beach, playground and recreation pier, consisting of about 6.7 acres, was acquired by the city in 1893 at a cost of about \$330,000. It has been improved at a cost of nearly \$200,000, or a total of over half a million dollars. Considerable money has recently been expended on this area in accordance with plans prepared in 1916. A retaining wall has been constructed between the playground and beach, and a strong wire netting placed around the playground as a protection from baseballs and other projectiles. Along the Commercial street side of the playground a low, permanent grandstand has been erected. The area could be made still more attractive by planting trees around the edges. This should be done in such a way as not to obstruct the view from the grandstand.

The bathing beach, used from June 15 to September 15, about 75 days, is very popular for at least a part of that time. Salt water bathing is a valuable asset for the people.



FIG. 45.—BIRDEYE VIEW OF NORTH END PLAYGROUND AND BEACH AND BRIDGE CONNECTING WITH COPP'S HILL TERRACES.

It is estimated that nearly 200,000 persons patronize the bathing facilities during the season. The bath houses provide for 600 or 800 men and as many women, and some of the bathers dress at home.

The slope of the beach is such that for six hours out of every twelve there is very little water owing to low tide, and it is always far from clean. This could be overcome by the construction of a dam near the end of the recreation pier as shown on the general plan. This would keep the water on the beach at a high mark at all times, and could

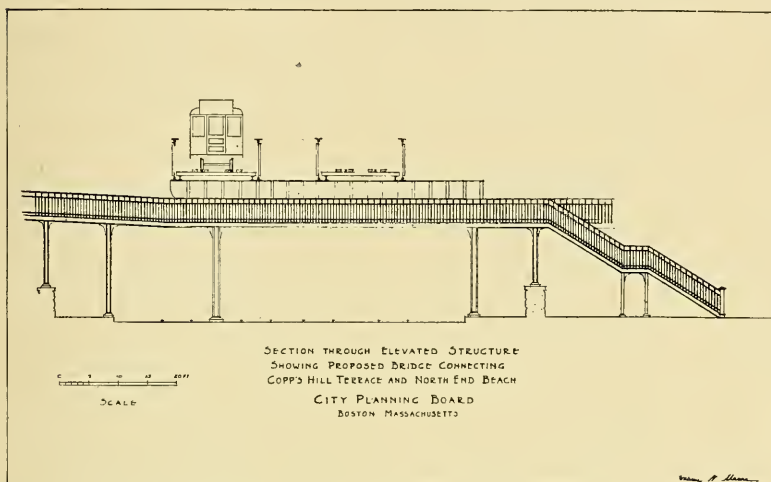


FIG. 46.—DETAIL DRAWING OF BRIDGE AND ELEVATED WALK FROM COPP'S HILL TERRACES TO THE NORTH END BEACH.

be maintained and kept clean by a flow of tide water through controlling inlet and outlet devices.

The city has an investment at this point that represents a cost in interest and tax values of over \$30,000 a year, so that any further improvement which would increase the benefits derived from the large investment already made would seem worthy of serious consideration.

UNITY COURT WIDENING AND EXTENSION. (Numbers 51 and 52.)

Unity court, leading northwesterly from Unity street, is too narrow for healthful housing. If properties Nos.

3 and 7 Unity street and Nos. 7, 9 and 21 Unity court were taken and the buildings removed, a small square would be formed which would provide good frontage to a number of existing buildings on both Unity court and Unity street (Number 51).

From the end of Unity court to Salem street a passageway or small street should be opened by taking properties No. 201 Salem street and Nos. 20 and 22 Unity court. Such opening will benefit also the rear ends of the excessively deep lots on Charter street (Number 52). The small remnant remaining from No. 20 Unity court might well be thrown into the street unless sold to the adjacent property owner.

PHIPPS PLACE EXTENSION. (Numbers 53 and 54.)

Phipps place, leading southerly from Charter street, should be extended through Snelling place to Hull street, there connecting with Margaret street extended as described in Section 34. This would necessitate the regrading of the property in front of the Pormort School, where a small square would be formed opposite the school building. The extension would necessitate also the acquiring of property No. 9 Hull street and the taking over by the city of the narrow passageway known as Snelling place (Number 53).

Between the square thus formed in front of the Pormort School and Salem street there is now some vacant yard space and a small brick building, through which a passageway might be constructed to provide additional access for light, air and service to the interior of the block (Number 54). This would also provide practically direct connection with Unity court extended as proposed in Section 52, and thereby afford much easier access to the school buildings for the children in that immediate locality.

FOSTER STREET NEIGHBORHOOD COURTS. (Numbers 55, 56 and 57.)

Between Henchman street and the Copp's Hill Terraces are two deep blocks separated by Foster street, which averages about twenty feet in width, and forms a steep connection between Charter street and Commercial street.

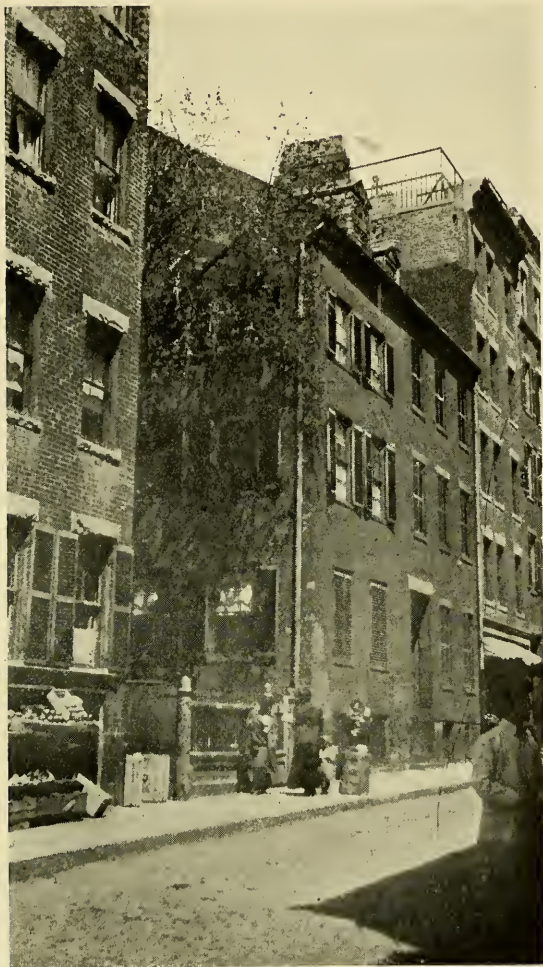


FIG. 47.—SALEM STREET, NEAR THE OLD NORTH CHURCH, SHOWING SIDE YARD THROUGH WHICH CONNECTION CAN BE MADE WITH PHIPPS PLACE EXTENDED.

These two blocks now contain interior lots that can be satisfactorily developed only by removing the buildings which at the present time lack adequate street frontages. For the most part these are wooden buildings, and their removal will not only insure light and air to the houses, but it will also materially lessen the fire risk and at the same time afford opportunity for the construction of two small neighborhood outing places.

Beginning at the rear of properties facing on Copp's Hill Terraces, half way between Charter and Commercial streets, as shown on the general plan, by acquiring part of the yard space in the rear of buildings fronting on either street, together with the $2\frac{1}{2}$ and 3 story buildings, and the brick building No. 12 Foster street, a court can be formed with entrance on Foster street (Number 55). This court should be reserved for local use only.

From Foster street to Henschman street this court should be continued by acquiring the 4-story brick building, No. 11 Foster street, and the wooden buildings, Nos. 3, 4 and 8 Foster place (Number 56).

From this point an outlet may be had to Henschman street by means of a passageway through lots at present unbuilt upon, lying between Nos. 10 and 14 Henschman street (Number 57).

GREENOUGH LANE WIDENING. (Number 58.)

This improvement was made the subject of a special investigation and report in February, 1915, accompanied by diagrams showing the historical growth of the blocks during a period of 100 years, together with recommendations for their satisfactory development substantially as shown on the general plan.

Block 8 is separated from Block 9 by a narrow alley known as Greenough lane, which connects Charter street with Commercial street, the two in effect comprising one large block with a large number of interior lots. The blocks are bounded on the west by Henschman street, known in the years 1708-1850 as Henschman's lane, and

before that as Declination Passage and Day's alley; on the north by Commercial street; on the east by Hanover street; and on the south by Charter street.

All the boundary streets afford fair frontage space for buildings, but between these streets, a distance of about 250 feet each way, there is no sufficient public open space, and no guarantee that the present private open spaces will remain such. In this block some opening is needed, and from careful examination it would appear that the

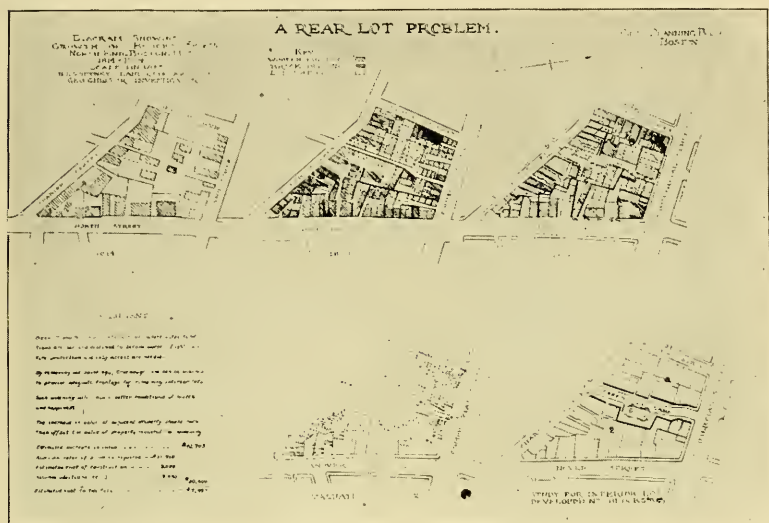


FIG. 48.—PLAN FOR GREENOUGH LANE WIDENING.

best results at the least cost can be obtained by widening Greenough lane as indicated.

Southeast of Greenough lane there are in effect four rows of buildings, of which only those on Hanover street have an adequate outlook. If two of the other three rows of buildings are removed, as proposed in the plan, the third will be provided with good frontage space.

If the property of the Bennett heirs, which covers 9,916 square feet of land, should be built upon to maximum capacity with permanent structures, the light and air would be shut off from the surrounding houses and the

nearby property would doubtless depreciate in value. In order to increase the value of the surrounding properties, and insure a sufficient amount of light and air, the Bennett properties, together with Nos. 13, 15, 17 and 19 Greenough lane, and Nos. 430 to 438, inclusive, Commercial



FIG. 49.—CHARTER STREET LOOKING NORTH SHOWING OLD BUILDING ON BENNETT PROPERTY, THROUGH WHICH GREENOUGH LANE SHOULD BE WIDENED. PRESENT OPEN AREA VISIBLE IN REAR OF BUILDING.

street, and the vacant yard space at the rear of Nos. 428 and 452 Hanover street, should be taken by the city, and Greenough lane widened. This will provide for a small open square in the center of the block, which should be developed as a neighborhood outing space. This widening will serve also as continuation of Unity street.

The cost of widening Greenough lane would not be very great if made in advance of rebuilding, while the increase in adjacent values should be nearly equal the cost of the improvement. Whether this increase can all be collected as betterments may be questioned, but if the increase can be made, and a very bad slum condition prevented, the change would be amply justified.

The small remnants remaining from Nos. 17 and 19



FIG. 50.—VERNON PLACE, LOOKING NORTH FROM A POINT 60 FEET IN FROM CHARTER STREET. HIGH BUILDINGS ON GREENOUGH LANE ON THE LEFT. WOODEN BUILDINGS AND BRICK IN DISTANCE SHOULD BE REMOVED TO WIDEN THE LANE.

Greenough lane and No. 434 Commercial street could be advantageously combined to form one corner lot of good building proportions.

The report of 1915 provided for the widening of Greenough lane on the northwest side, at the corner of Commercial street. Since that time the properties at this location have been combined under one large holding, and a fireproof building erected, thereby requiring for economic reasons, a change in the original plan to provide for the widening on the opposite corner.

Although the results in this instance are not particularly disastrous, the incident might serve as an illustration of the possible disadvantages to be encountered in the development of any section without reference to a definite plan.

SUBDIVISION OF BLOCKS 64, 65 AND 66. (Numbers 59, 60 and 61.)

Between Hanover, Harris, North and Battery streets is a large area of poorly divided and inadequately approached interior property shown as assessors' blocks 64, 65 and 66. These blocks are separated by the narrow ways of Hanover avenue and Salutation street, the latter only an alley. Any widening of these narrow ways would still leave much of the interior property without proper street frontage.

The blocks can best be opened up by the construction of a new street from Battery to Harris street, half way between Hanover and North streets. This will intersect the several narrow cross streets which separate the block, and afford excellent street frontages to many interior properties whose only outlook at the present time is on dark and narrow streets, courts or private alleys.

At the northeast corner of Battery street and the proposed street there will remain a small remnant, No. 23 Battery street (Number 59). This adjoins property already owned by the City of Boston (occupied in part by Police Station 8) and might well be combined with it.

Between Salutation street and Hanover avenue (Number 60) and between Hanover avenue and Harris street (Number 61) there will remain several remnant properties on either side of the proposed street. Several of these remnants already constitute reasonable sized building lots. Others might be sold to adjacent owners; or, by taking the adjoining property by excess condemnation, and relocating existing lot lines, satisfactory building sites with frontages on the proposed street can be obtained.

HARRIS STREET WIDENING. (Number 62.)

In order to provide an adequate approach to the southerly end of the proposed street (discussed in Sections 59, 60 and 61) Harris street, now narrow and crooked, should be widened.

Between North street and the new street this widening should be on the northerly side, by cutting back properties numbered 20 to 32, inclusive, Harris street and 350 Hanover street. These properties, which are wooden houses with the exception of one brick building at the corner of Harris and North streets, are all under the same ownership.

Between the new street and Hanover street the widening should for the most part take place on the southerly side. This can be done by acquiring the vacant space north of St. Stephen's Church in order to insure the maintenance of the present width between buildings. A slight cutting back of properties numbered 16 and 18 Harris street is shown in order to facilitate traffic passing in and out of the new street.

BARBER'S ALLEY, EVERETT COURT AND WEBSTER PLACE IMPROVEMENT. (Numbers 63 and 64.)

Block 62, bounded by Hanover, Clark, North and Fleet streets, contains a number of rear houses fronting on Barber's alley, Everett court and Webster place.

The space between and including Barber's alley and Everett court (Number 63) is about fifty feet in width, all of which should be taken and treated as a small public open space. From there to North street one three-story wooden building should be removed. Toward Hanover street a width of about twenty feet can be obtained by taking the existing vacant yards and a small portion of the stable No. 24 Fleet street.

Between this point and Webster place (Number 64) are several wooden buildings which should be removed, and the area maintained as a small neighborhood outing

space. Access should be had to this area from Clark street, by acquiring properties Nos. 17 and 19 Clark street, together with wooden buildings in the rear. The adjacent property, under this plan, would be left in fairly reasonable shape so that, with the possible exception of the stable, no remnants need be considered.

FINANCIAL ASPECTS.

ESTIMATE OF COSTS FOR, AND OF POSSIBLE RETURNS FROM, THE PROPOSED IMPROVEMENTS.

The following items of cost must be taken into consideration in connection with the different improvements recommended:

- (a.) *Assessed value of properties taken.*
- (b.) *Additional costs for taking.*
- (c.) *Construction costs.*
- (d.) *Loss in taxes during period of reconstruction, figured on basis of three years.*

These items together represent the probable gross cost of the undertaking. To determine the net cost to the city, the following sources of revenue must be considered:

- (e.) *Possible revenue from assessment of betterments.*
- (f.) *Possible revenue from sale of lands after improvement.*
- (g.) *Possible revenue from sale of buildings.*
- (h.) *Increase in tax returns, due to betterments, covering a period of ten years.*

These questions have been determined as hereinafter described in their application to each improvement, and the results are given in the concluding summary.

(a.) The assessed value of properties taken, land and buildings, including eminent domain, remnant and excess takings, has been ascertained in each case.

(b.) The rate for additional costs is based upon the usual estimate for similar work, or at about 25 per cent of the assessed valuation of the properties.

(c.) Construction costs have been figured upon prevailing prices for similar work. This estimate is above the average, due to the excessive cost of labor and materials at the present time.

(d.) The loss in taxes for three years, during period of reconstruction, is figured on the assessed value of the properties affected in each case.

The gross cost, therefore, of improvements in which all available property is returned to commercial purposes, and in which the cost is in part or largely to be repaid from property benefited, has been assumed to be approximately $137\frac{1}{2}$ per cent of the present assessed valuation of the properties to be taken.

(e.) In estimating the possible revenue from the assessment of betterments, the fact that benefits should accrue to adjacent properties is in most cases evident; and that it should extend over a reasonably large area is also probable. For each improvement, or group of improvements, proposed, the area in which it appears that properties should be benefited has been determined, the assessed values of the properties have been ascertained, and an average rate of increase over the assessed valuation has been assumed. This rate of increase has been figured as low as 5 per cent in the case of a general distribution over a large area, to 15 per cent where the benefits would be wholly or largely local.

This estimate is purposely conservative in order that the burden upon occupants of rented dwellings, who, in the last analysis will in all probability be called upon to meet the additional cost in the carrying of the property, shall not be excessive.

(f.) To determine the possible revenue from sale of lands after the improvements have taken place, the area of each parcel has been determined, and a minimum selling value, based upon the assessed value per square foot plus the usual 25 per cent additional, has been imposed. This makes no allowance for increased valuation due to improvements, or to advantages in location, which may well be considerable.

(g.) The average return from the sale of old buildings in the case of similar improvements has been used as the basis for computing the amount to be derived from this source.



(h.) The increase in tax returns, covering a period of ten years, has been figured on the basis of the estimated betterments. The building development which will naturally follow the improvements recommended will be of a more valuable type than now exists, and will further add to the revenue annually received by the city in taxes.

SUMMARY.

The gross cost of all the proposed North End improvement, therefore, is estimated as follows:

	Area.	Assessed Valuation.	
Property Taken:			
Street	220,682 square feet	\$2,418,100	
Other Improvements	179,351 square feet	1,213,500	
		<hr/>	\$3,631,600
Excess Takings:			
Street	15,342 square feet	\$137,000	
Other Improvements	24,767 square feet	186,400	
		<hr/>	323,400
Eminent Domain:			
Street	7,850 square feet	\$74,612	
Other Improvements	27,421 square feet	173,283	
		<hr/>	247,895
Cost of Taking (25 Per Cent):			
Street		\$657,428	
Other Improvements		393,296	
		<hr/>	1,050,724
Construction:			
Street		\$186,667	
Other Improvements		86,082	
		<hr/>	272,749
Loss of Taxes (Three Years):			
Street		\$157,783	
Other Improvements		94,391	
		<hr/>	252,174
			<hr/>
Gross Cost			\$5,778,542
Street	\$3,631,590		
Other Improvements	2,146,952		
	<hr/>		\$5,778,542

The possible returns have been estimated as follows:

	Area.	Estimated Valuation.	
Salable Lands:			
Street	109,558 square feet	\$934,089	
Other Improvements	56,365 square feet	272,741	
		<hr/>	\$1,206,830
Betterments:			
Street		\$765,972	
Other Improvements		940,037	
		<hr/>	1,706,009
			<hr/>
Carried forward		\$2,912,839	\$5,778,542

Brought forward	Estimated Valuation.	\$2,912,839	\$5,778,542
Tax Increase (Ten Years):			
Street	\$153,194		
Other Improvements	188,007		
		341,201	
Sale of Buildings and Materials:			
From all Improvements	\$200,000		
		200,000	
			3,454,040
Net Cost			<u>\$2,324,502</u>

The largest item, that of the proposed main thoroughfare, involves over one half the total amount, and the greater part of this improvement should be made as one undertaking, so that the estimated cost could not well be uniformly distributed over a long term of years. Items Nos. 13, 14, 15, 36, 37, 38, 39 and 40 are intimately related to this major improvement, and should be undertaken at the same time.

No attempt has been made to present the recommendations in the order of their exigency. That is a matter which may well be determined by circumstances, necessity, public convenience, or general demand.

As a further credit against the net cost of \$2,324,502 there are a number of factors which, although impossible to estimate in dollars and cents, nevertheless have a very appreciable value in their relation to any community. If the improvements herein recommended are carried out, every place of abode in the district will be provided with a reasonable amount of light and air, thereby yielding a return in health and morals which is incalculable; street traffic through, in and about the district will be greatly facilitated, and a number of small neighborhood play spaces will have been established which will go far toward furnishing the youth of the district with convenient opportunity for healthful recreation.

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